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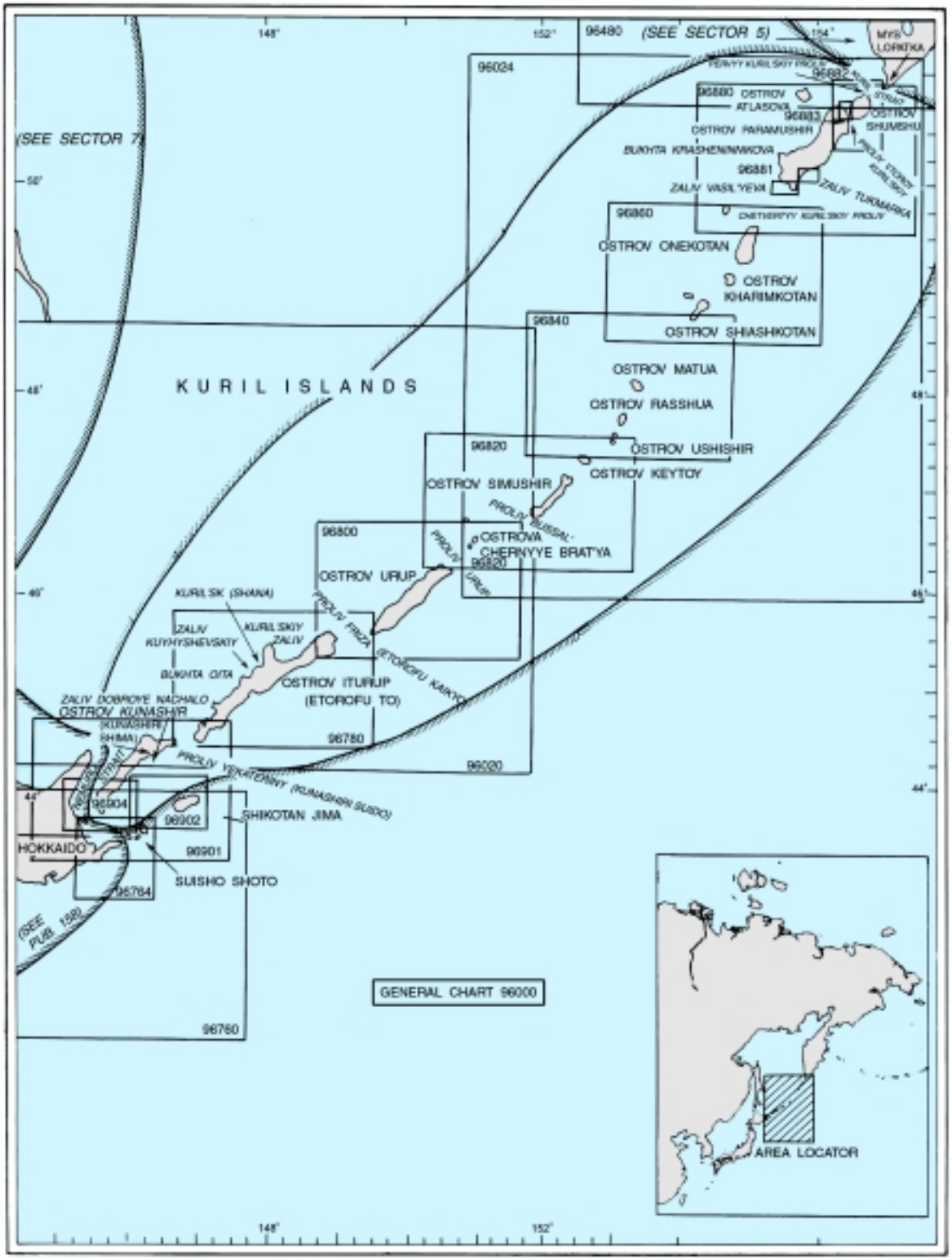

Additional chart coverage may be found in CATP2, Catalog of Nautical Charts.

SECTOR **4** — CHART INFORMATION

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SECTOR 4

KURIL ISLANDS

Plan.—This sector describes the islands and straits of the Kuril Islands. The arrangement of the sector is from NE to SW.

General Remarks

4.1 Winds—Weather.—At Ostrov Onekotan, NW winds last from September to May or June. In July and August, much lighter SE winds are prevalent, with the probability of fog.

The mountains of Ostrov Onekotan act as a barrier, and with SW winds there may be a dense fog along the Pacific coast, while the opposite coast is clear. For similar reasons, vessels usually keep to the NW of the islands when navigating in the vicinity of the NE Kuril Islands in summer. Near Ostrov Shumshu strong NW or SE winds are frequent in autumn and winter.

At Reyd Tyatinskiy, from November to March, the period of NW winds, the weather is mostly part fair. Between March and June the predominant winds are E, and in summer they are SE with frequent haze or fog.

The Kuril Islands are subject to the two monsoon seasons. The winter monsoon generally brings NW or W winds, especially predominant from November to February. The summer monsoon produces SE or E winds from June to September. In all seasons, the winds are variable, strong winds being more frequent in winter than in summer.

Navigation in the vicinity of the Kuril Islands is generally made dangerous by prevailing thick weather, principally resulting from fog and snow and by the proximity of ice. Winter gales are also frequent. The fogs, occurring mostly in summer, may be dense and moist, amounting almost to rain, with accompanying cloudy skies, or there may be banks of fog extending to heights less than 24m with a cloudless sky above. The dry fogs usually extend to a considerable height and in calm weather may lift about 24 to 30m above the sea, leaving it perfectly clear below. When the islands are enveloped in fog, the higher summits may often be seen when the lower land is completely obscured.

In depths of less than 28m, the presence of thick kelp, which grows in masses throughout the islands, may indicate the presence of land. Within 3 miles to the leeward of the islands, sulphur fumes may be detected.

Fog is less frequent on the leeward side of the islands. Warning signals are sometimes made by horn or bell from the shores near the anchorages. The horns have been audible at a distance of about 1.5 miles.

Fog is relatively thick and frequent NE of Ostrov Simushir, as compared to the area SW. The thick fogs accompany E winds after the latter part of May, becoming almost continuous during the SE winds of July and August. Their number greatly diminishes with the beginning of NW winds in September. After winds and rain, when the weather is changing, the occurrence of fog frequently decreases for a few days.

Ice.—Drift ice in the Okhotsk Sea usually approaches the Kuril Islands with winds between the N and W, or NE and NW, and leaves with winds between the S and SW, or S and SE. This condition is more or less reversed on the Pacific Ocean coasts of the chain, where the drift ice arrives with winds between the E and S and is carried away by those from the NW to SW. It is reported that field ice in the Okhotsk Sea, the E extremity of which has been described as sludge and broken ice, may be encountered approximately 50 to 60 miles W of the Kuril Islands during the months of January, February, March, and April.

The drift ice is generally most prevalent on the NW side and in the SW part of the Kuril Islands. There is comparatively little between Ostrov Urup and Kamchatka, in which area Pervyy Kuril'skiy Proliv and Chetvertyy Kuril'skiy Proliv are reported to be free of ice during the entire winter. The N ocean current of the E Okhotsk Sea, running in a counterclockwise direction along the NW coasts of the islands, may drive ice from this NE region. There is also less fast ice in the NE part of the chain. Some ice is rafted and piled along the W coast of that area, but except for Ostrov Shumshu and Ostrov Paramushir, it is formed principally by small floes scattered in places.

At Shibetoro Misaki, on the NW side of Ostrov Iturup (Etorofu To), drift ice may be set onto the coast by winds from between the N and W in late January, gradually forming fast ice which may extend miles offshore. In the vicinity of Shana, on the same coast, with NW or W winds, fast ice forming in mid-January may fill the bays by the end of that month, and floes brought by wind and current from the N and NW parts of the Okhotsk Sea have been reported to arrive after the early part of February. This latter ice, which is cleared off by the middle of May, occasionally may occupy the coasts and straits over a considerable area, including Ostrov Kunashir (Kunashiri Shima), Ostrov Iturup (Etorofu To), and Shikotan To. The floes, 4 to 9m thick, with much of their bulk consisting of snow, pass through the various straits and melt in the Pacific Ocean.

Drift ice arriving in the Kuril Islands area during April and May appears to be liberated from the fast ice on the E coast of Sakhalin Island N of 50˚N, thaws by March, and is later carried S by wind and current toward the N coasts of Hokkaido. The floes are then carried NE by the current flowing along the NW side of the Kuril Islands and continue to the coasts of Ostrov Iturup, Ostrov Urup, and Ostrov Simushir. Part of this ice passes through Proliv Yekateriny (Kunashiri Suido), Proliv Friza (Etorofu Kaikyo), and Proliv Urup, reaching the SE side of the chain, after which it is carried away by the S drift of the Oyashio. It is not encountered after the middle of May.

It is reported that generally field ice does not create hazards to navigation in the Kuril Islands, but that during and after January, vessels should exercise caution because of drift ice. In winter, with the exception of certain areas and times, the islands are not considered to be ice-bound for navigational purposes. Ice-free anchorages have been reported throughout

the chain. Data regarding these and other descriptions of ice in local areas are given in this sector.

Tides—Currents.—The Kuril Islands are influenced in summer by an extension of the warm Tsushima Current, a branch of the Kuroshio Current, which flows E through La Perouse Strait. This current, after leaving the strait, continues along the N coast of Hokkaido to Shiretoko Misaki, and then divides into two branches, one setting N into the Sea of Okhotsk, apparently reaching the middle islands of the Kuril Islands, and the other entering Nemuro Strait and Proliv Yekateriny (Kunashiri Suido). In winter, the Tsushima Current is almost obliterated in La Perouse Strait.

The cold Oyashio Ocean Current flows S along the SE coast of Kamchatka and the E side of the Kuril Islands. At the middle part of the islands it appears to join a current setting from the Sea of Okhotsk, and continues S to an area off the S coast of Hokkaido. Its general velocity in summer appears to be less than 1 knot. Information regarding the flow of the Oyashio in winter is lacking.

Except near spring and autumn syzgies, when the moon is at full or new phase, there is a large diurnal inequality along the coasts of the Kuril Islands, and diurnal tides are frequent. In areas other than the Sea of Okhotsk region S of Ostrov Simushir, the greatest inequality in the time of tide occurs generally at HW, and the greatest difference in height occurs at LW. Near summer and winter syzygies, the difference in height may attain 1.5m in the S part of the islands, and about 1.9m in the N part. During the same period, in the Sea of Okhotsk region S of Ostrov Simushir, it may attain a difference in height of about 1.3m, and there is a marked inequality in the time and height of both HW and LW.

In areas other than those around the channels between the islands, the tidal currents in the vicinity of the Kuril Islands are not strong, but in accordance with the tides, there is considerable diurnal inequality. The flow of water is also complicated by the ocean currents which set NE along the NW side of the islands and SW along the SE side. In the narrow channels the velocity is great.

On the SE side of the islands the flood tidal current is SW and the ebb is NE. The flow on the NW side follows the same directions, with some local differences. On both sides, when diurnal inequality is great, the direction may change twice in 24 hours.

The Kuril Islands (Kuril'skiye Ostrova), formerly called Chishima Retto, extend about 630 miles in a SW direction between the S extremity of Kamchatka and the E coast of Hokkaido. The larger islands are generally high, steep, and volcanic, with rugged coasts and occasional defined cones.

The main islands, named from NE to SW, are Ostrov Paramushir (Paramushiru To), Ostrov Simushir (Shimushiro To), Ostrov Urup (Uruppu To), Ostrov Iturup (Etorofu To), and Ostrov Kunashir (Kunashiri Shima). Pervyy Kuril'skiy Proliv (Kuril Strait) is described in Sector 3.

Caution.—Vessels are forbidden from making unnecessary visits to any of the Kuril Islands between **Proliv Yekateriny** (44˚27'N., 146˚45'E.) and **Chetvertyy Kuril'skiye Proliv** (49˚45'N., 155˚10'E.). This area has been reserved and government fox farms are situated on the islands.

Regulations for the Protection and Husbandry of Sea Mammals prohibit the entry of vessels into the waters close to the coasts described in this sector without the permission of the Fisheries Board, except when in a traffic separation scheme, designated fairway, or recommended route.

Vessels transiting the area are not allowed to make sound signals (except as required by COLREGS 1972), fire guns, fly airplanes or helicopters below 4,000m, fish, or collect seaweed and other marine products.

Ostrov Shumshu

4.2 Ostrov Shumshu (Shimushu To), the NE and the only low island of the Kuril Islands, consists of plateaus rising in steps, and there are no mountains.

Anchorage.—In summer, when S winds are prevalent, temporary anchorage can be taken anywhere off the NW coast of the island.

Caution.—Abnormal magnetic variations have been observed in the vicinity of Ostrov Shumshu.

Mys Kurbatova (Kokutan Saki) (50˚52'N., 156˚29'E.), the NE extremity of Ostrov Shumshu, consists of low sandy hills fringed with rocky ledges. A reef, on which is a rock, 3m high, extends about 0.3 mile E of the cape. A rock, awash, lies 0.3 mile NW of the cape. A light is shown on Mys Kurbatova and a radiobeacon transmits from the light.

The E coast of Ostrov Shumshu is a succession of steep cliffs, rocky points, and sandy beaches. **Mys Yaugich** (50˚46'N., 156˚31'E.), the E point of the island, lying 6.5 miles S of Mys Kurbatova, is a flat rocky projection bordered about 1 mile ESE by a reef, upon which the sea breaks heavily, and marked by tide rips. Rif Vostochnyy, with a depth of 5.2m and always marked by tide rips, lies about 2.5 miles NE of Mys Yaugich.

Bukhta Babushkina, the only bay on the E side of Ostrov Shumshu, lies on the N side of Mys Babushkina.

The S half of the bay is full of rocks which extend up to 0.9 mile offshore, but the N half is sandy and has depths in it of 6 to 9m. In summer and autumn a heavy seas usually runs into the bay, and it is not a safe anchorage.

Mys Babushkina, the SE point of the island, is cliffy and can be easily recognized by the brown color of its S side, and by a black, pointed rock, about 0.2 mile E of its extremity.

Proliv Vtoroy Kuril'skiy (Paramushiru Kaikyo)

4.3 Proliv Vtoroy Kuril'skiy leads between Ostrov Shumshu and Ostrov Paramushir (Paramushiru To). The least navigable width is about 0.4 mile, and the strait is seldom used by large vessels due to the eddies caused by the irregularities in the depths. The S part of the fairway passes through a small area with depths of 8.2 to 18.3m, and in places throughout the strait the shore banks with depths less than 18.3m lie close to mid-channel on either side.

Winds—Weather.—Fog occurs from June to September, with the highest frequency during July. The weather is usually quite unfavorable, though changeable. There is scarcely any summer.

Ice.—Drift ice from the Sea of Okhotsk interferes with navigation during the winter months. This is especially so when the winds are from the W through N to NE. In severe

winters, Proliv Vtoroy Kuril'skiy may be completely blocked by ice. The ice begins to arrive during late December in the average year. Ice is not encountered after the middle of May.

Tides—Currents.—In the strait, the flood tidal current is N and the ebb is S. When the diurnal inequality is small, the change occurs about 1 hour 30 minutes after HW or LW at Nakagawa Wan. When the inequality is large there may be a diurnal tide, with the S current flowing from about 7 hours before until about 2 hours after LLW at Nakagawa Wan, the N current flowing during the remaining 15 hours.

In the narrows of the strait the velocity may exceed 5 knots, but at neaps in summer, the velocity in this area is only about 3 knots. At springs in summer, the N current may attain a velocity of about 1.5 knots in the S entrance, and about 2.5 knots in the N entrance.

Caution.—Magnetic variation has been reported in the vicinity of the strait.

Several submarine cables lie in the strait and in the approaches and may best been seen on the chart.

4.4 The S approach to Proliv Vtoroy Kuril'skiy lies between **Mys Levashova** (Arahata Saki) (50˚30'N., 156˚10'E.) and Mys Babushkina, 12 miles NE. In the approach, two groups of dangers lie S and SE, respectively, of Ostrov Shumshu.

Ostrov Bazarnyy (Kotani Shima), 23m high and the largest island in the S group of dangers, lies about 4.5 miles E of Mys Levashova. Togari Shima (Ostrov Bakliny), lying 0.8 mile SW, is 46m high and can be easily distinguished. Banka Kazach'ya (Kiyosue Ne), with a depth of about 1.2m, and sometimes marked by seaweed, lies 1.8 miles S of Togari Shima. An 11m rocky patch lies 2 miles farther SW.

Ostrov Baklinin (Chiri Shima), two rocks, lie 0.5 mile ESE of Ostrov Bazarnyy and appear as one islet from a distance. Amatani Ne, a 7.8m shoal marked by breakers, lies about 0.8 mile ENE of Ostrov Baklinin.

None of the islets should be approached within 1 mile.

The SE group of dangers consists of Skala Vladimira (Shiro Iwa), a small rock about 6m high, part of which appears white, but which is not easily identified; Mel' Koksher (Tanaka Ne), a steep-to rock, with a depth of 4.1m, about 1.5 miles NNE of Skala Vladimira; and Rif Nezametnyy, a rock having a depth of 3.6m, lies about 2 miles farther NE.

Gora Vysokaya (Mitsuka Yama) (50˚41'N., 156˚17'E.) is the highest hill on Ostrov Shumshu and from a distance resembles a castle.

The S shore of Ostrov Shumshu is bold and cliffy, and should not be approached within a distance of 1 mile.

The N approach to Proliv Vtoroy Kuril'skiy has no off-lying dangers. **Mys Chibuynyy** (Imai Saki) (50˚46'N., 156˚12'E.), the E point of the N entrance, is a vertical cliff and shows up well from the N. Hirata Ne, a 5.9m shoal, lies about 1.8 miles NE of Mys Chibuynyy. Gora Ploshchadka (Matsumura Yama), about 0.7 mile SSE of Mys Chibuynyy, is somewhat conspicuous. A light with a transmitting radiobeacon is shown from Mys Chibuynyy.

Caution.—Non-Russian vessels are required to approach Proliv Vtoroy Kuril'skiy in designated fairways which may best been seen on the chart.

4.5 East side of Proliv Vtoroy Kuril'skiy.—Mys Derbeshova (Fujita Saki) (50˚41'N., 156˚11'E.) is a dark rocky point. Sotono Se, a 3.7m shoal, lies about 0.8 mile SSW of the point, and Skala D'yak, a prominent rock which dries 2m, lies on the edge of a reef fringing the shore 0.7 mile NW of Mys Derbeshova.

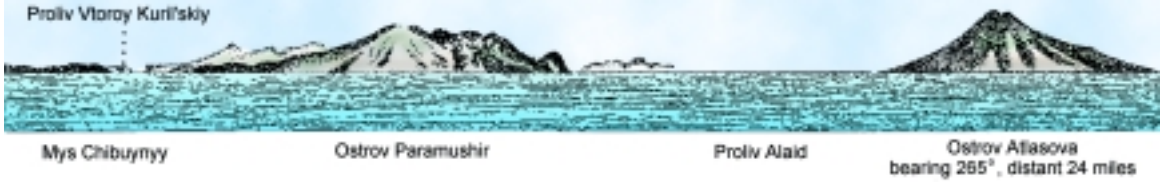
Zaliv Kozyrevskogo (Kataoka Wan) (50˚43'N., 156˚11'E.), 1.5 miles N of Mys Kozyrevskogo, is a dark rocky point. Sotono Se is a cove with Baykovo (Kataoka), a small naval base and supply port for Ostrov Shumshu, at its head. A mole at Baykova has an alongside depth of 3.6m.

Anchorage.—Anchorage can be had about 0.4 mile WSW of Wakabayashi Saki, the N entrance point of the cove, in 11m, sand and shingle, but the tidal currents are rather strong, and usually vessels will not ride head to wind during gales. Holding ground is reported to be poor.

4.6 West side of Proliv Vtoroy Kuril'skiy.—Mys Ozernyy (Miyagawa Saki) (50˚36'N., 156˚10'E.), 6 miles N of Mys Levashova, is low, stony, and backed by low hills covered with scrub. A black cliff, about 1 mile NNW of the point, is conspicuous from the S, even in winter when the land is covered with snow.

Zaliv Severo-Kuril'skiy (Kashiwabara Wan) (50˚41'N., 156˚08'E.), entered between Mys Opornyy (Ishikawa Saki) and Mys Voranova (Nagare Saki), 1.5 miles further N, offers anchorage in moderate depths about 0.5 mile offshore, close within the 20m curve. The holding ground of black sand is fairly good. The bight offers some shelter, but when W squalls from the mountains oppose the strength of the tidal current, a vessel may ride uneasily. There is some danger of dragging during strong winds.

Mys Voranova is the SE extremity of a prominent tableland. The point is cliffy, but the cliffs are not remarkable.



Proliv Vtoroy Kuril’skiy and Proliv Alaid

Zaliv Artyushima (Murakami Wan) (50˚44'N., 156˚09'E.) is shallow and the holding ground of sand over rock is not good. Heavy tide rips usually occur over the uneven bottom fronting this bight.

Ostrov Atlasova (Araito To)

4.7 **Ostrov Atlasova** (50˚52'N., 155˚33'E.) is separated from Ostrov Paramushir by Proliv Alaid (Araito Kaikyo), an unencumbered strait about 12 miles wide at its narrowest part. The N coast of the island is low, with sandy beaches in places, and most of the S coast is cliffy.

Gora Alaid (Oyakoba Yama), a very prominent, conical volcano, in the center of the island, has two summits, the NE summit being somewhat smaller than the SW summit. It is always capped with snow.

Poluostrov Vladimira (Taketomi Shima), a small volcanic islet, 133m high, on the E side of the island, is joined to the coast W by a sandy spit. A light is shown from Poluostrov Vladimira.

Tides—Currents.—Both flood and tidal currents set round the coast of Ostrov Atlasova in a clockwise direction. Velocities of 0.7 to 1.3 knots have been observed.

Caution.—Magnetic variation has been observed in the vicinity of Ostrov Atlasova.

Ostrov Paramushir

4.8 Ostrov Paramushir, the largest island in the N part of the Kuril Islands, has a string of mountain ranges surmounted by conspicuous peaks. The coasts of the island are largely cliffy and rock-strewn. Foul bottom extends about 2 miles off the SE side in places. Off the NW side, which is especially bold and rugged, there are no dangers at a distance greater than 1 mile.

Winds—Weather.—Ostrov Paramushir has strong W winds from the end of October through April. In July and August, E winds are most prevalent, but in Bukhta Shelikhova, on the NW coast, there is the likelihood of ESE winds between April and July, and of NW winds in August and September.

Caution.—In summer, large fishing nets, buoyed and marked, but sometimes unlighted at night, may be encountered extending as far as 4 miles offshore, in the vicinity of Ostrov Paramushir and Ostrov Shumshu. Motor drifters, with nets as much as 3 miles in length, may be encountered farther offshore.

Abnormal magnetic variation has been observed in the vicinity of the island.

The Russian authorities have stated that navigation is prohibited within the coastal waters along the S and W coasts of Ostrov Paramushir between Mys Ozernyy and **Mys Neproydennyy** (50˚17'N., 155˚12'E.).

4.9 **Southeast side of Ostrov Paramushir.—**Mys Rifovyy (Tomari Saki) (50˚29'N., 156˚08'E.) is a gravelly point lying 2 miles SW of Mys Levashova. Rif Izmony (Tomari Se), a rock with a depth of less than 1.8m, lies about 1 mile SE of the point. Ostrov Chaykina (Kamone Shima), about 1.5 miles SW of Mys Rifovyy, is a group of rocky islets. The NE and highest islet is 15m high. The islets should not be approached too closely as there are sunken rocks in the area.

Mys Uglevoy (Mamiya Saki) (50˚24'N., 156˚01'E.), 6.5 miles SW of Mys Rifovyy, is fronted by foul ground extending about 0.5 mile E. Several above-water rocks lie on this foul ground, the E being Skala Opasnaya (Matsutake Iwa), shaped like a mushroom and conspicuous from the S. Ostrov Chernyy (Hira Iwa), a black rock, lies about 0.6 miles offshore, and 2.2 miles N of Mys Uglevoy.

4.10 Zaliv Puyshariya (Asahi Wan), between Mys Rifovyy and Mys Uglevoy, affords anchorage with some shelter from SE swells in 18m, about 0.8 mile W of Ostrov Chaykina. The bay is not safe during S or E winds. A rock, formerly Mukai Ne, with a depth of 5.5m, and marked by breakers, lies 1.2 miles offshore, about 1.5 miles SSE of Mys Uglevoy.

Bukhta Rifovaya, a small bay on the W side of Mys Rifovyy, affords temporary anchorage sheltered from all winds except those from between the S and W, to small vessels. Local knowledge is required and care is necessary to avoid a rock, with a depth of 1.8m, lying 0.4 mile offshore, 0.6 mile W of Mys Rifovyy.

A recommended berth is situated in a depth of 16m, sand, 0.5 mile E of the NE islet of Rif Izmony, having regard to the dangers (Tomari Se) lying 0.4 mile NE of this berth. The berth is not suitable with a wind or swell from the S.

Landing is possible only at HW, in Bukhta Rifovaya, which has a beach of shingle fringed with rocks on which the sea breaks.

Mys Kokina (Tatsukami Saki) (50˚11'N., 155˚48'E.), about 16 miles SW of Mys Uglevoy, is a narrow prominent tongue of land, 26m high, fringed with a rocky ledge covered with seaweed and marked by breakers. Ostrov Bazarnyy, a long, flat, detached rock, lies about 1.8 miles E of the point. Foul ground extends 1.3 miles off the coast between Mys Kokina and Maru Hana, about 1.7 miles WSW.

Tides—Currents.—The tidal currents appear to meet in the vicinity of Mys Kokina. The flood tidal current NE of the point sets to the N or E, and the ebb in an opposite direction, the maximum velocity being around 1 knot. The flood tidal current SW of the point sets SW and the ebb NE.

4.11 **Bukhta Okeanskaya** (Suribachi Wan) (50˚11'N., 155˚44'E.), a small fishing harbor, has a rocky bottom and its entrance is encumbered by ledges and thick growths of kelp. Some fishing and canning stations, with prominent chimneys and two radio masts, are situated on the E shore of the bay.

Yaokuri Saki (50˚11'N., 155˚39'E.), prominent and cliffy, is backed by a hill with a red summit. A reef, parts of which uncovers and is always marked by breakers, extends about 0.8 mile SSW of the point.

Zaliv Tukharka (Otomae Wan), close W of Yaokuri Saki, affords protection from the SW through N to NE winds. The E part of the bay is somewhat protected by the reef extending SSW from Yaokuri Saki. Parts of this reef are above-water and it is always marked by breakers.

Anchorage.—Anchorage, good holding ground, fine sand, is available between the 10m and 20m curves. Approach to the anchorage should be made with Otomae Yama, the hill on the

E side of the mouth of the river at the head of the bay, bearing 000˚, and then anchoring in depths of 12.8m.

Anchorage can also be obtained in about 20m, with the hill backing Yaokuri Saki bearing 030˚, distant about 1.5 miles.

4.12 Okino Shima (Ostrov Dym) (50˚09'N., 155˚34'E.) is conspicuous. Rocks, sometimes marked by breakers, with depths of 5m or less, lie 0.5 mile SW and 0.3 mile E of the islet.

Mys Vasil'yeva (50˚00'N., 155˚23'E.), lying 11 miles SSW of Ostrov Dym, is the S extremity of Ostrov Paramushir. It lies at the S end of a low, marshy cape, fringed with foul ground. Chidoriga Iwa, consisting of three rock heads which dry 1.5m and are marked by breakers, lies about 1.5 miles ESE of Mys Vasil'yeva, and is the outermost danger on this side of the point. Rakko Iwa, a rock, lies near the extremity of a rocky reef, covered with seaweed and extending about 0.6 mile SW of Mys Vasil'yeva. A light with a transmitting radiobeacon is shown from Mys Vasil'yeva.

Tides—Currents.—Near Mys Vasil'yeva the flood tidal current is W, with a velocity that may attain more than 3 knots. The ebb tidal current sets E with a velocity of about 1 knot, although the ebb current is usually neutralized by an opposing current, and frequently there is a continuous W current.

Anchorage.—Zaliv Vasil'yeva (Musashi Wan), entered W of Mys Vasil'yeva, affords protection from N and E winds. Good anchorage can be taken about 1 mile W of the town of Kharitonovka (Raishi), on the E side of the bay, in depths of 12.8 to 14.6m, fine sand. Farther W, the seaweed becomes too thick to permit anchoring.

Mys Kapustnyy (Kapari Saki), 7 miles WNW of Mys Vasil'yeva, is the SW extremity of Ostrov Paramushir. It is fringed by a drying reef and surrounded by kelp. A light is shown from a red octagonal tower with white bands on the point. A dangerous reef, upon which the sea usually breaks, extends about 0.7 mile S from the point. A rock, with a depth of 11m, lies about 1.3 miles S of Mys Kapari.

Ose Yama, a hill with a sharp summit, about 3.5 miles NNE of Mys Kapari, is a good landmark.

Tides—Currents.—Near Mys Kapari, both the flood and ebb tidal currents frequently set NW with velocities of 2 to 3 knots. Tide rips are frequent.

4.13 Northwest side of Ostrov Paramushir.—Vulkan Fussa (Shiriyajiri Dake) (50˚16'N., 155˚15'E.), a 1,772m high prominent extinct volcanic cone, lies about 13 miles N of Mys Kapustnyy. There is a bluff faced with steep cliffs on its NW side.

Ostrov Antsiferova (Shirinki To) (50˚12'N., 154˚59'E.) has six summits, the highest of which, near its center, is 748m. On its W side, the wall of the crater has collapsed and a gap has been formed. Except near its E point the coasts of the island consist of vertical cliffs.

Caution.—A thick growth of seaweed surrounds the island.

Proliv Luzhinka (Shirinki Kaikyo), the deep passage leading between Ostrov Paramushir and Ostrov Antsiferova, is about 8 miles wide in its narrowest part and is free of dangers, but in its vicinity thick fogs are frequent.

Tides—Currents.—Caution should be exercised because of the strong N tidal currents in Proliv Luzhinka.

Bukhta Krasheninnikova (Kujira Wan) (50˚18'N., 155˚21'E.), close NE of Vulkan Fussa, has very deep water and heavy seas run in during N winds. With S winds, violent squalls may sweep down from the valleys between the steep peaks around the bay.

Vulkan Chikurachki (Chikura Dake) (50˚20'N., 155˚27'E.), on the E side of Bukhta Krasheninnikova, about 9 miles NE of Vulkan Fussa, has traces of a landslip on its W side. Gora Lomonosova (Kammuri Take), about 4.5 miles farther SSW, affords a good mark for the head of the bay.

Anchorage.—Temporary anchorage can be obtained in a depth of 24m, about 1.8 miles NE of Kujirahama, a village near the river mouth on the S side of the bay.

4.14 Mys Shelikhova (Daigo Saki) (50˚23'N., 155˚35'E.), about 15 miles NE of Vulkan Fussa, is a somewhat salient point that is fringed by rocks, some above-water, extending 0.3 mile offshore.

Bukhta Shelikhova (Kakumabetsu Wan), entered E of Mys Shelikhova, is sheltered from all but N winds, being the best harbor in Ostrov Paramushir. Mito Yama, a conspicuous hill, rises about 1.5 miles S of Mys Shelikhova. From the W the hill appears steep-to, from the NW flat-topped, and from the NE pointed. Daibyobu Dake and Amefuri Dake are two flat-topped and prominent hills located about 2.7 miles ESE and 2.2 miles SE, respectively, of Mito Yama. Kuro Zaki, a dark, rocky point, about 31m high, lies 2.2 miles ESE of Mys Shelikhova and is reported to be not easily identified.

Because of the hills encircling Bukhta Shelikhova, the bay is protected from the thick fogs accompanying prevailing SE winds between April and July. The bay may be relatively free of fogs when they are numerous and thick on the SE side of the island and in Proliv Vtoroy Kuril'skiy.

Anchorage.—Anchorage can be taken in a depth of 20m, sand, good holding ground, with Kuro Saki bearing 100˚, distant about 1 mile.

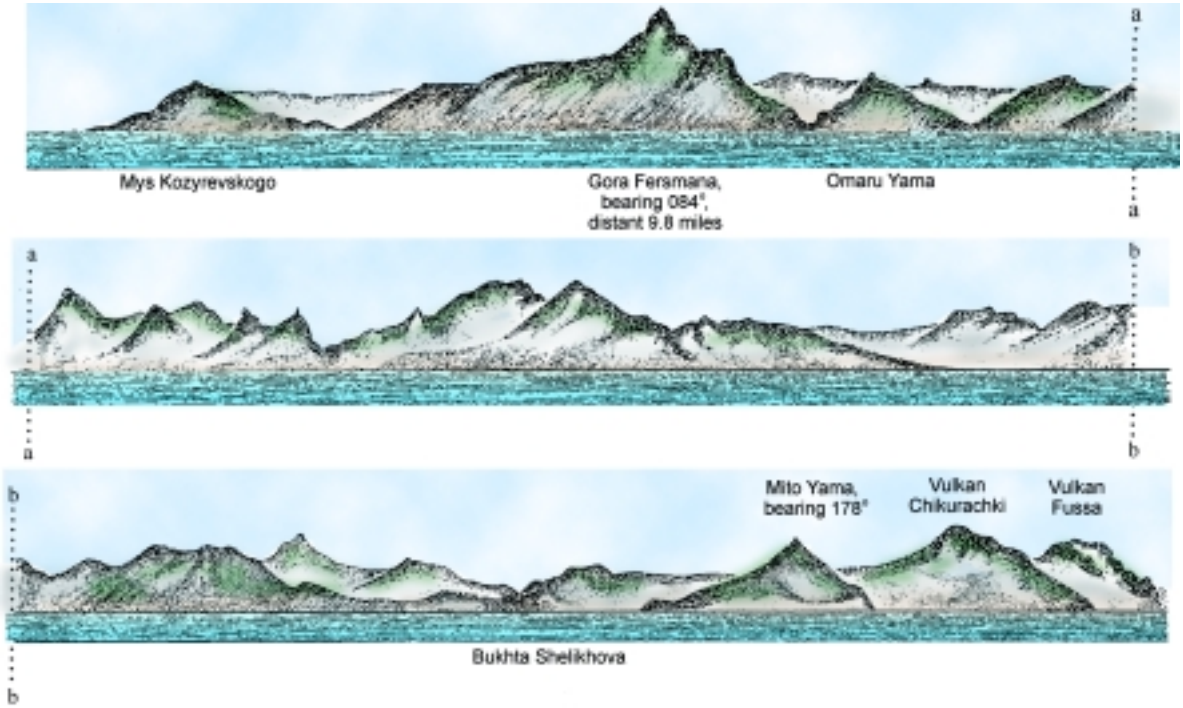
Anchorage can also be taken in a depth of 21m, sand, with Kuro Saki bearing 158˚, distant 0.6 mile.

Mys Medvezhonok (Kamogawa Saki) (50˚26'N., 155˚43'E.), about 6 miles ENE of Mys Shelikova, is a prominent reddish point.

Tides—Currents.—The flood and ebb tidal currents off the NW coast of Ostrov Paramushir are influenced by a current, the resultant flow almost always setting NE. The velocity of the flow rarely exceeds 1 knot, except in the vicinity of Mys Shelikhova, where it sometimes attains a rate of 2 knots.

Gora Fersmana (Arakawa Dake) (50˚31'N., 155˚30'E.) is a rocky prominent peak located about 2.7 miles E of Mys Fersmana. Gora Antsiferova (Omaru Yama), 2.2 miles SSW of Gora Fersmana, is a prominent rocky peak frequently obscured by clouds.

Mys Kozyrevskogo (Araise Saki) (50˚39'N., 155˚51'E.), 9 miles NNE of Mys Fersmana, is a steep cliff 115m high, and is conspicuous from the NE or SW. Discolored grayish water marks the river mouth about 5 miles NE of Mys Kozyrevskogo.



Northwest coast of Ostrov Paramushir—View in three parts

Chetvertyy Kuril'skiy Proliv

4.15 Chetvertyy Kuril'skiy Proliv, the very deep passage between Ostrov Paramushir and Ostrov Onekotan, about 29 miles SW, is the recommended route for vessels bound between ports on the E coast of Kamchatka and ports in the Sea of Okhotsk. In thick weather the NE side of the strait should be given a wide berth as the rocky S points of Ostrov Paramushir may be obscured when higher land is visible.

Traffic Separation Scheme.—An IMO-approved Traffic Separation Scheme lies in the waters of Chetvertyy Kuril'sky Proliv and may best be seen on the appropriate chart.

Tides—Currents.—In Chetvertyy Kuril'skiy Proliv the flood tidal current sets WNW and the ebb flows in an opposite direction. The velocity of the tidal currents may exceed 2 knots.

Ostrov Makanrushi (Makanru To) (49˚47'N., 154˚26'E.), a volcanic island, lies on the SW side of Chetvertyy Kuril'skiy Proliv. The NE and S shores of the island consist of gravel beaches with low hills rising close inland. The other coastal sections of the island consist of high cliffs with a steep and narrow beach at their foot.

Tides—Currents.—Off the W and N sides of Ostrov Makanrushi, the flood tidal current flows N and the ebb flows S or E. Off the E side of the island, the flood is S and ebb is N. The velocity seldom exceeds 1 knot.

Anchorage.—Anchorage is available off the coves on the SE and W sides of the island in depths of less than 37m, about 0.8 mile offshore.

Caution.—Abnormal magnetic variation has been observed in Chetvertyy Kuril'skiy Proliv and in the vicinity of Ostrov Makanrushi.

Skala Avos' (Kamen' Avos) (Hokake Iwa), about 13 miles WSW of the summit of Ostrov Makanrushi, is a bare, gray, triangular rock, 35m high, resembling a vessel under sail. Four small rocks lie close E and NE of it. A reef, covered with seaweed, extends about 0.5 mile NE of Kamen Avos'. A rock, which dries 0.6m, lies at the end of the reef.

Chetvertyy Kuril’skiy Proliv from W

The group is steep-to and is frequented by birds and sea lions.

Islands and Passages between Chetvertyy Kuril' skiy Proliv and Proliv Kruzenshterna

4.16 Ostrov Onekotan (Onnekotan To) (49˚25'N., 154˚45'E.) has bold and cliffy coasts. There is a great amount of vegetation, but no tall trees. The 10m curve lies up to 1.5 miles off the salient points of the island.

Gora Krenitsyna (Kuroishi Yama) (49˚21'N., 154˚42'E.), the highest mountain in the S part of the island, is a conspicuous volcanic cone rising from the center of a lake.

Vulkan Nemo (Nemo Yama) (49˚34'N., 154˚49'E.), the highest mountain in the N part of the island, is an active volcano, emitting smoke from its SE side.

Mys Kimberley (Kimpei Masaki) (49˚38'N., 154˚49'E.), the NW point of the island, is fringed with a kelp-covered reef extending about 0.3 mile NW.

Mys Ivan-Malyy (Kinto Zaki), the NE point of the island, lies 4 miles ESE of Mys Kimberly, and has a conspicuous, detached rock, close E of it.

Bukhta Vlakiston (Kuroishi Wan), the open roadstead near the middle of the E side of the island, offers anchorage during W winds in depths of 18.3 to 28m, sand bottom. Westerly squalls sometimes descend the valley at the head of the bay and can be avoided by anchoring in the N part of the roadstead. Mys Mussel' is the S entrance point of Bukhta Vlakiston.

Gora Shestakova (Yencho Zan) (49˚29'N., 154˚44'E.), a round-topped mountain, appears sharp from the SW.

Anchorage.—Bukhta Nemo (Nemo Wan), on the N end of the W side of Ostrov Onekotan, close S of Mys Kimberley, offers good anchorage, protected from the swell which accompanies the SE wind of summer, in depths of 18.3 to 27m, good holding ground of sand.

Good holding ground, can be taken in a depth of 29m, with Vulkan Nemo bearing 167˚ and Mys Kimberley bearing 038˚. In Bukhta Nemo the tidal current sets SW during the flood tide and NE on the ebb, the maximum velocity being not more than 0.8 knot. These tidal currents are believed to be the countercurrent of those farther out.

Proliv Krenitsyna (Harumukotan Kaikyo), the channel between Ostrov Onekotan and Ostrov Kharimkotan (Harumukotan To), has a width of 7.5 miles between the 10m curves extending from the NE and SW shores.

Tides—Currents.—In Proliv Krenitsyna the flood tidal current sets NW and the ebb SE, but they are influenced by ocean currents. The NW current is stronger, especially in summer, and is accompanied by tide rips and eddies. Velocities of 2.5 knots in the middle of the strait, and of 4 knots on its SW side, have been experienced.

4.17 Ostrov Kharimkotan (Harumukotan To) (49˚07'N., 154˚31'E.) has its summit, Vulkan Severgina (Harumukotan Dake), in the form of a double truncated dome which appears bell-shaped from a distance.

A hill, 488m high, and a domed-shaped mountain, 713m high, are located 1 mile NNW and 1 mile NNE, respectively, of the volcano. A plateau of deep purple lava is located close to the NE coast in this vicinity. The NW part of the island consists of low sand hills, with several small ponds and a lake.

Tides—Currents.—Heavy tide-rips are formed off the S extremity of the island, and a NW current with a rate of 6 knots has been experienced.

Anchorage.—Anchorage can be taken in the bight E of the N extremity of the island, sheltered from S winds, by vessels with local knowledge, in poor holding ground.

Caution.—The shape and heights of Ostrov Kharimkotan were reported to have changed considerably because of the great volcanic eruption on it. Caution should be used in the vicinity of the island, and when approaching the anchorage, as it is probable that changes have occurred in the surrounding depths.

Proliv Severgina, about 16 miles wide at its narrowest part, leads between Ostrov Kharimkotan and the N sides of Ostrov Shiashkotan (Shasukotan To) and Ostrov Ekarma (Yekaruma To).

Tides—Currents.—In Proliv Severgina, the flood tidal current sets WNW and the ebb sets ESE. Observations made in summer indicate that in mid-channel the N current seldom exceeds a velocity of 2 knots, but the strength increases toward the coasts on either side and may attain 5 or 6 knots off Ostrov Kharimkotan and Ostrov Shiashkotan. Tide rips occur near both of these islands.

4.18 Ostrov Shiashkotan (Shasukotan To) (48˚51'N., 154˚10'E.) consists of two mountainous parts connected by a narrow isthmus about 90 to 152m high. The island has rugged coasts, fringed with rocky ledges and seaweed in most sections.

The summit of the island rises in the NE part. Kuro Dake, about 1 mile N of the summit, is a dark, flat-topped mountain, steep on all sides. Close SW of Kuro Dake, nearly in the middle of the NE part of the island, is a sharp peak, brown in color.

The summit of the SW part of the island, about 1 mile NNE of its S extremity, has on its W side surrounded by masses of sulfur, a former crater from which large quantities of steam are emitted.

Higashi Ura is a roadstead on the SE side of the isthmus joining the NE and SW parts of Ostrov Shiashkotan. A reef extends about 0.8 mile offshore from its center. A rock, which dries 0.9m, lies at the outer end of this reef. A rather conspicuous square column of rock, 17m high, lies close off the NE entrance point of the bay.

Anchorage.—Good temporary anchorage is available to vessels with local knowledge in a depth of 27m, sand, NE of the reef in the center of the bay, when anchorage on the NW side of the island is untenable.

Mys Yuzhanin (Ara Saki), the S extremity of Ostrov Shiaskotan, has high, steep cliffs. In its vicinity, for a distance of 5 miles SW, the NW tidal current is usually strong and tide rips occur.

Bukhta Otome (Otome Wan), a roadstead on the NW side of the isthmus, opposite Higashi Ura, lies between Kanega Saki and Hiraiso Zaki, about 2.5 miles NE. Kanega Saki is a prominent, black, flat-topped precipice, 29m high. Hiraiso Zaki is a brown cliff with a flat summit.

Return to paragraph 3.26

Anchorage.—Anchorage, exposed to winds from the N and W, is available in moderate depths over sandy bottom. Fog on the SE side of the island usually travels over the low isthmus, and during E or SE gales there may be violent offshore squalls. A good berth in a depth of 27m, sand, lies with Kanega Saki bearing 242˚, distant about 0.6 mile. Amatsu Yama, 515m high, about 1.5 miles SSE of Kanega Saki, serves as a useful mark for the anchorage.

Oneta Misaki, the NW point of Ostrov Shiashkotan, is marked by a conspicuous flat-topped rock which lies on a ledge close off the point.

Ostrov Ekarma (Yekaruma To) (48˚57'N., 153˚57'E.) is separated from Ostrov Shiashkotan by Proliv Ekarma (Yekaruma Kaikyo), a strait about 4.5 miles wide and unobstructed.

The island is steep-to on all sides. The coasts of the island consist mostly of cliffs, but on its N and E sides are beaches of boulders.

Tides—Currents.—In Proliv Ekarma the flood tidal current is NE and the ebb is SW. The flood current begins to run 2 to 3 hours after LLW, but it is influenced by the ocean current. The ebb current may attain a rate of 2.7 knots, while the flood current does not exceed a rate of 2 knots.

4.19 Ostrov Chirinkotan (Chirinkotan To) (48˚59'N., 153˚29'E.), about 16 miles W of Ostrov Ekarma, has two conical peaks, of which the higher and sharper is nearer the W side of the island. The coasts are steep, but near the NE extremity of the island is a stony beach, off which lies a rock, 24m high.

Ostrova Lovushki (Mushiru Retsugan), forming an arc of a semi-circle, appear to be the remains of the E side of an ancient crater. **Naga Iwa** (48˚33'N., 153˚51'E.), near the N end, has two grass-covered summits. Taka Iwa, about 0.5 mile farther SE, is a steep rock with a flat top. **Kaihyo Iwa** (Azarashi Iwa) (48˚32'N., 153˚51'E.), the S above-water rock of the group, is bordered about 0.5 mile ESE by a 6.4m patch.

There are numerous other rocks, some above-water, in Ostrova Lovushki. There is a thick growth of seaweed, sometimes run underwater by the tidal current, in depths of less than 18.3m.

Caution.—Two 8.5m patches lie about 6 miles and 6.5 miles E, respectively, E of the S end of Ostrova Lovushki. An 18m patch lies about 6 miles E of the N end of Ostrova Lovushki.

Proliv Kruzenshterna

4.20 Proliv Kruzenshterna lies between Ostrov Shiashkotan, previously described, and Ostrov Raikoke, about 38 miles SW. The channel is divided into two passages by Ostrova Lovushki.

The passage S of Ostrova Lovushki is very deep and quite safe.

The passage N of Ostrova Lovushki is not recommended due to the tide rips extending about 7 miles SW from Ostrov Shiashkotan.

Tides—Currents.—A strong NW tidal current flows through the middle of Proliv Kruzenshterna, and also within 5 miles of the SW end of Ostrov Shiashkotan. This tidal current causes tide rips SW of Ostrova Lovushki and Ostrov Shiashkotan. At times, eddies and whirlpools are formed.

Islands and passages between Proliv Kruzenshterna and Proliv Bussol'

4.21 Ostrov Raikoke (Raikoke Jima) (48˚18'N., 153˚15'E.) rises to a summit, 551m high, which is a large crater. The rim of the crater has crumbled away to a considerable extent. The coasts of the island are steep-to.

Proliv Golovnina (Koroni Kaikyo) lies S of Ostrov Raikoke. The tidal currents do not attain any great rate in the strait and it is free of dangers.

Ostrov Matua (Matsuwa To) (48˚05'N., 153˚12'E.) is a conical active volcano, continuously emitting white smoke. The long slope extending SE from the summit terminates in low hills and terraces, S of which is a sandy beach. The SE extremity of the island is fringed by reefs and islets extending about 0.5 mile S. The largest islet is 29m high. From a point 2 miles W of the SE extremity, a reef, awash in places and covered with kelp, extends about 1 mile S.

Bukhta Ikeda, a small anchorage, lies between Ostrov Matua and Ostrov Toporkovyy (Iwaki Jima), a small, flat, grassy island, about 0.5 mile E. The anchorage is divided into N and S parts by a kelp-covered reef joining the two islands. A light, from which a radiobeacon transmits, is shown from Ostrov Toporkovyy.

Tides—Currents.—The tidal currents flow N and S with velocities exceeding 3 knots for a distance of 7 to 8 miles offshore on the E and NE sides of Ostrov Matua. Rates of as much as 5 to 6 knots have been reported.

Tidal currents 1 mile S of Ostrov Toporkovyy flow N on the flood tide and S on the ebb tide at a rate of 2 knots.

Anchorage.—Ikeda Wan offers some shelter from wind and sea, but there is no protection from the swell. The holding ground is not good.

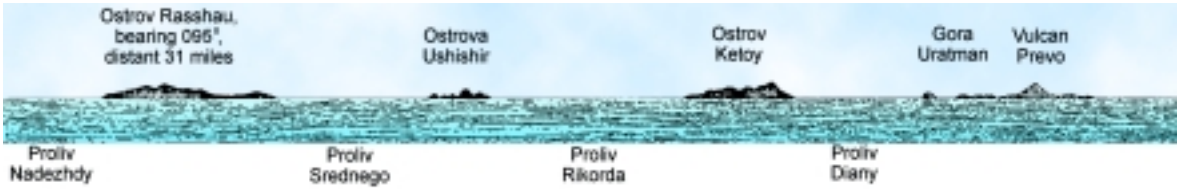
In the N anchorage, the best berth is in a depth of 21m, about 0.3 mile W of the NW extremity of Ostrov Toporkovyy.

In the S anchorage, the best berth is in a depth of about 16m, SW of the summit of Ostrov Toporkovyy.

Proliv Nadezhoy from SE

Proliv Nadezhdy (Rashowa Kaikyo), between Ostrov Matua and Ostrov Rasshua, about 16 miles SSW, is free of dangers except for the reef extending S from Ostrov Matua. A bank,with a depth of 14m over it, lies about 7 miles SSW of Ostrov Matua.

Tides—Currents.—Strong currents through the strait make caution necessary when there is poor visibility. In Proliv Nadezhdy the flood tidal current is NW and the ebb is SE. When diurnal inequality is large there may be a single flood and single ebb period in the tidal day. The flood current begins



Proliv Nadezhoy to Proliv Diany from NW

to run 2 or 3 hours after LLW. According to observations made in summer, the velocities on the N side of the strait do not exceed 2 knots, but on the S side may be greater than 5 knots. Tide rips occur, being greatest on the N side during the flood, and on the S side during the ebb.

4.22 Ostrov Rasshua (Rashowa Jima) (47˚46'N., 153˚01'E.) is high towards its N and S ends, with a gap between. Its summit, in the N part, has an active volcano on its SE side. The volcano constantly emits sulfur, which gives the ground in the vicinity a yellow color. The E half of the crater has subsided. The coasts of the island mainly consist of high cliffs. At its S extremity there is a narrow stretch of level land.

A detached rock, which dries 0.6m, lies about 0.8 mile SE of the S extremity of the island.

Proliv Srednego (Suride Kaikyo), between Ostrov Rasshua and Ostrova Ushishir, about 9 miles SSW, is reported to be the most dangerous passage in the Kuril Islands and should be avoided if possible. The navigable channel is about 4 miles wide between Kamen' Button (Botan Iwa) on its NE side, and **Kuro Iwa** (47˚36'N., 152˚53'E.), the N rock of Ostrova Srednego, on its SW side.

Kamen' Button (Botan Iwa), about 1.5 miles SSW of the S extremity of Ostrov Rasshua, is steep-to and 0.3m high. The tidal currents are so strong in its vicinity that it is nearly always hidden by breakers.

Ostrova Srednego is a group of reefs and rocks, some above-water, with Kuro Iwa, a black rock at its N extremity. Ashika Shima, 0.3m high, the SE extremity of the group, lies about 2.3 miles SSE of Kuro Iwa. A rock, 0.9m high, lies nearly midway between Kuro Iwa and Ostrova Ushishir.

The strong tidal currents in Proliv Srednego attain a velocity of 4 knots, and there are heavy tide rips.

4.23 Ostrova Ushishir (Ushishiru Shima) (47˚32'N., 152˚49'E.) consists of two islands joined by a reef that dries.

Ostrov Ryponkicha (Kita Jima), the NE island, reaches its highest elevation, 130m, at Ishi Yama at its SW end.

Ostrov Yankicha (Minami Jima), the SW island, rises to a sharp summit on its W side. A large, deep crater, breached by the sea on its S side, occupies the middle part of the island. Tancho Iwa, a remarkable columnar rock, lies close S of the SE point of the island.

Tides—Currents.—In the vicinity of Ostrova Ushishir, the flood tidal current is N, with a velocity of not more than 2 knots, and the ebb tidal current is S, with a velocity of as much as 6 knots. Sometimes the S current may run all day.

Anchorage.—Higashi Wan, S of Ostrov Ryponkicha, offers anchorage in depths of 26 to 35m, fine sand, E of the N extremity of Ostrov Yankicha. A good berth lies in a depth of 29m, with Ishi Yama bearing 306˚, distant about 0.7 mile. The anchorage should be approached with Ishi Yama bearing 306˚, and anchoring when the E end of the 41m rock SW of Ostrov Ryponkicha bears 028˚, and the E extremity of Tancho Iwa bears 208˚.

Nishi Wan offers anchorage in depths of 26 to 35m, W of the SW extremity of Ostrov Ryponkicha. To avoid the bank N of Nishi Wan, the anchorage should be approached with the N extremity of Ostrov Yankicha bearing 106˚, and anchoring when the summit of this island bears 201˚.

Proliv Rikorda (Ketoi Kaikyo), between Ostrova Ushishir and Ostrov Ketoy (Ketoi Shima), about 14 miles SW, has an extensive bank in its center, which causes whirlpools and eddies.

4.24 Ostrov Ketoy (Ketoi To) (47˚20'N., 152˚29'E.) has the steep W slope of the summit, on the W side of the island, conspicuous. White smoke is continuously emitted from the N side of a red peak, about 1.7 miles E of the summit.

The W, NW, and NE coasts consist of mostly high cliffs, but on the E and S sides the slope is more gradual and the cliffs are 30 to 60m high.

At the foot of the cliffs are beaches of large stones from which reefs extend offshore for a short distance.

Pine woods grow on the SE slopes of the island, and there are willows in the valleys and near the edges of the cliffs.

Mys Monolitnyy, the SW extremity of Ostrov Ketoy, is a rocky point, close to the S side of which is a remarkable pointed rock, 15m high.

Between Mys Monolitnyy and the S extremity of Ostrov Ketoy, 30 miles E, there is a slight indentation in the coast in which there are depths of less than 18m, many rocks, mud, and seaweed.

The S extremity of Ostrov Ketoy is a cliffy projection, 38m high, from which a flat rocky ledge extends SE for 0.1 mile. A rock, about 3m high, lies 0.7 mile offshore, off the SW coast of the island.

A waterfall, which is conspicuous from N, is located 0.9 mile E of the N extremity of Ostrov Ketoy.

Anchorage.—With N winds, vessels with local knowledge can anchor on the S side of Ostrov Ketoy. A suitable berth lies in 42m, fine sand, with Ashi Zaki bearing 028˚, and Mys Monolitnyy (Nakagiri Zaki) bearing about 284˚. The tidal currents at the above anchorage are reported to be strong.

Ostrov Simushir from S

On the W and N coasts, anchorage can be obtained by small vessels with winds from the N through E to SE, in a bay entered between Mys Monolitnyy and a point 1.2 miles NNW, close N of which is an islet 31m high. The recommended berth is in a depth of 18m, sand, about 0.3 mile from the shore. Local knowledge is required.

Proliv Diany (Shimushiru Kaikyo), a deep strait with no off-lying dangers, leads between Ostrov Ketoy and the NE end of Ostrov Shimushir, about 10 miles SW.

Tides—Currents.—In Proliv Diany the flood tidal current sets NW, while the ebb current sets SE. When the diurnal inequality is large there may be only one flood and one ebb current during the tidal day. According to observations made in summer, when the current is diurnal, it runs SE for 5 or 6 hours before LLW at Bukhta Broutona until 3 or 4 hours after that LW; a velocity of 3 knots is attained. During the remaining 15 hours there is a weaker NW set.

4.25 Ostrov Simushir (Shimushiru To) consists of a chain of extinct volcanoes with wooded slopes in its central and NE part. The SW part is mountainous with few trees. The SE coast of the island is steep-to. The NW coast is fringed by rocks, close inshore, and bordered by a thick growth of seaweed.

Gora Uratman (47˚07'N., 152˚15'E.) has steep black slopes and is located on the SE side of Bukhta Broutona, a flooded crater at the N end of Ostrov Simushir.

Vulkan Prevo, about 8 miles SW of Gora Uratman, is conical and very prominent.

Gora Mil'na (Vulkan Mil'na) (46˚49'N., 151˚47'E.) rises near the S extremity of the island, forming its summit. This section is joined to the rest of the island by a low neck.

Mys Rollin, the S extremity of the island, is 136m high and the slopes above are covered with shrubs and herbage.

Caution.—Volcanic activity has occurred about 14 miles S of Mys Rollin.

Zaliv Mil'na (Shimushiru Wan) (46˚52'N., 151˚50'E.) is located on the NW side of the island, about 5.5 miles NNE of Mys Rollin. A light is shown from the S entrance point of the bay. A sandy beach lies at the head of the bay. A prominent rock stands on top of the cliffs, about 0.5 mile W of the S entrance point.

Ice.—Drift ice, up to 1.5m in thickness, sometimes obstructs Zaliv Mil'na in the latter part of March or April according to the direction of the wind, but it only remains about 1 day.

Tides—Currents.—The weak tidal currents on the SE side of Ostrov Simushir are influenced by the ocean current, the resultant flow being usually SW with a velocity not exceeding 1.5 knots. Off Mys Otvesnyy, the NE extremity of the island, a rate of over 3 knots has been experienced. Off Mys Vasina, 10 miles SW of Mys Otvesnyy, there is a NE set from 2 to 3 hours after LW.

Off Mys Aront, the W extremity of Ostrov Simushir, observations made in summer at springs indicate that the ocean current usually flows NW, its velocity sometimes exceeding 3 knots.

In Zaliv Mil'na, both flood and ebb tidal currents frequently set W, with velocities of 0.8 knot to 2.5 knots. A NE set is seldom experienced.

The tidal currents flow in a NE-SW direction along the NE part of the NW coast of the island. The SW current begins 2 or 3 hours after LW and its velocity may exceed 1 knot. The NE current does not exceed 0.8 knot.

Anchorage.—Zaliv Mil'na is free from off-lying dangers, but there is often a strong W current and heavy squalls may blow down from the mountains. The recommended anchorages are near the 10m curve, N of the SW end of the neck or W of the NE end. The anchorage cannot be considered safe.

Anchorage can also be obtained in Taki Ura, a slight indentation on the NW side of the island about 5.5 miles WSW of Mys Otvesnyy the NE extremity. The recommended berth is in a depth of 27m, mud, with the waterfall at the head of the U-shaped cove bearing 120˚, distant about 0.6 mile. A prominent rocky islet lies about 0.15 mile offshore 2 miles NE of the waterfall.

Caution.—Because of the low land at its head, Zaliv Mil'na is not protected from the dense fogs which usually accompany E winds. It may be foggy when there is clear weather in the lee of the high hills on either side.

Proliv Bussol' and Proliv Urup

4.26 **Proliv Bussol'** (46˚40'N., 151˚51'E.) and Proliv Urup lead between the SW end of Ostrov Simushir and the NE end of Ostrov Urup, about 56 miles SW. The straits are separated by three small islands, consisting of Ostrova Chernyye Brat'ya, Ostrov Chirpoy, and Ostrov Broutona. Ostrova Chernyye Brat'ya consists of Ostrov Chirpoy, the NE island, and Ostrov Brat Chirpoyev, the SW island.

Traffic Separation Scheme.—An IMO-adopted Traffic Separation Scheme lies in the waters of Proliv Bussol, and may be best seen on the appropriate chart.

Tides—Currents.—The flood tidal current between Ostrov Simushir and Ostrov Urup sets N, and the ebb sets S, attaining velocities of up to 3 knots. The tidal currents are influenced by the ocean currents, and the resultant flows are irregular.

In Proliv Snou, between Ostrov Chirpoy and Ostrov Brat Chirpoyev, the flood tidal current sets NW, and the ebb SE, with velocities of up to 3 knots. The flood tidal current begins 2 or 3 hours after LW. Eddies are sometimes formed in the E entrance of the strait.

Proliv Bussol', about 36 miles wide, leads between Ostrov Broutona and Ostrov Chirpoy, to the W, and Ostrov Shimushir, to the E. This is the widest channel in the Kuril Islands. The channel is unobstructed, but caution is necessary due to the uncertainty of the tidal currents, especially with E winds, which send in dense fog usually extending across the strait.

Ostrova Chernyye Brat'ya (Chirirhoi To) appear from the SE as three cones of different heights. The islands, being small, are subject to fogs. The greatest frequency is between May and July, during SE winds.

A considerable amount of driftwood may be found on the coasts of the islands, especially on sandy beaches.

4.27 **Ostrov Chirpoy** (Kita Jima) (46˚32'N., 150˚53'E.) is surmounted by three peaks aligned in a N-S direction. The N peak, Vulkan Chernogo (Okuzure Yama), the summit of the island, has perpendicular cliffs caused by landslips on the NW side of its crater. White smoke is continually emitted from the middle peak. The S and lowest peak sometimes emits a few columns of steam.

Bukhta Peschanaya is formed on its NE side by a narrow peninsula, 166m high, which is joined to the NE end of Ostrov Chirpoy by a low, sandy isthmus. Heavy squalls sometimes descend from the mountains. In summer, a S swell rolls in and breaks heavily.

The S coast of Ostrov Chirpoy, between its W extremity and a point 3.2 miles E, consists of rocks of porous lava and is of a dark brown color.

The SE extremity of the island is cliffy, 31m high, and is a habitat for numerous sea birds whose cries can sometimes be heard for a distance of 0.5 mile. Close S of the point is an islet, 3m high, on which sea lions can usually be seen.

A semi-circular cove on the S side of the point has a pebble beach backed by high land. The ruins of a building associated with some disused sulphur mines stand on the shore.

Ostrov Brat Chirpoyev (Minami Jima), separated from Ostrov Chirpoy by Proliv Snou, a deep passage, rises to a conical summit near its W side. **Mys Semenova** (46˚27'N., 150˚51'E.) is the SE extremity of Ostrov Brat Chirpoyev. The headland is 33m high, and from it the land slopes gently upward. In summer, it is usually enveloped in fog. Rakko Jima, a steep, conical islet, lies close NE of the island. A reef, with some above-water rocks, extends about 0.3 mile E of this islet, and a rock, which dries 0.9m, lies about 0.5 mile SE of the islet. Skala Lev, a rock, lying close inshore, W of the summit of Ostrov Brat Chirpoyev, resembles a lion lying down, near which tide rips and eddies occur.

4.28 **Ostrov Broutona** (Buroton To) (46˚43'N., 150˚45'E.), about 11 miles NNW of Ostrov Chirpoy, is a dome-shaped island, fringed with cliffs about 274m high. Its coasts consist of beaches of large stones. A rock, 28m high, the highest of several, some of which are submerged, lies close off the NW coast of Ostrov Broutona and is frequented by large flocks of sea bird. Tidal currents in the vicinity of the island are weak, and the resultant set is mainly NNE with a maximum velocity of around 2 knots.

Ostrov Broutona from W

Proliv Urup (Minami Uruppu Suido), about 15 miles wide, leads between Ostrov Brat Chirpoyev and the NE extremity of Ostrov Urup. The strait is free of dangers, except for the tide rips off Mys Kastrikum. The tidal currents are strong, and in foggy weather the passage should not be attempted unless the vessel's position is certain, as the low NE point of Ostrov Urup and the islets off it, may be obscured while the high land W is visible.

Caution.—Volcanic activity has been reported about 55 miles ENE of Mys Kastrikum. Mys Kastrikum. No further information is available.

Magnetic disturbance is reported to exist within a radius of 8 miles from Ostrov Broutona.

Ostrov Urup

4.29 Ostrov Urup is generally extremely rugged on the NW side of the range of mountains running lengthwise through it. On its SE side, there is a gradual slope to the coast. Peaks over 1,219m high rise in the N, middle, and S parts of the island. The summit of Ostrov Urup, in the S part, has several other peaks of nearly equal elevation around it.

The coasts of Ostrov Urup are generally cliffy, with little sandy beach, and level land is found only near its SW extremity. The island is fringed with kelp, especially towards its SW end, where it covers the sea for stretches of 5 or 6 miles, and presents the appearance of reefs.

On the NW shore of Ostrov Urup there are no dangers more than 1 mile offshore.

There are no safe anchorages and the best temporary ones are situated off the NW side of the island.

Winds—Weather.—Ostrov Urup has prevailing S winds from May to July, with frequent calms. By September, W winds predominate, but later in autumn the direction is variable. At Reyd Otkrytyy, on the NW coast, locally strong SE winds occur from May to July. At Zaliv Natalii (Tsurigane Wan), on the same coast, the winds are very strong in summer.

Near Ostrov Urup, fogs occur most frequently from May to September, being particularly numerous between June and August. On the SE side of the island, fogs are generally expected with S winds. In June and July, the fogs are relatively low and peaks on the island may appear, but in August and September it may be possible to make out the coast while the upper slopes are enveloped in fog.

Tides—Currents.—The tidal current on the SE side of Ostrov Urup is SW on the flood tide and NE on the ebb tide, with velocities of less than 1 knot.

The tidal currents on the NW side of the island, with the exceptions of the straits on either end, have a general SW or W flow on the rising tide, and a NE or E flow on the falling tide. A velocity of about 1.5 knots is attained.

The tidal currents on either side of the island are greatly affected by the winds and the ocean currents.

4.30 Southeast side of Ostrov Urup.—The SE coast of Ostrov Urup consists almost entirely of high cliffs with a fringe of large boulders and rocky reefs extending 1 mile offshore in places.

Caution.—The kelp grows thicker on this side of the island than on the NW side and it is not safe to navigate close inshore. In summer, high seas run all along the coast and there are neither secure anchorages nor safe landing places.

Mys Kastrikum (Karasunoo Misaki) (46˚14'N., 150˚35'E.), a cliff about 31m high, is the extremity of a flat tongue of land that forms the NE point of Ostrov Urup. A light and radiobeacon are situated on the cape. About 0.5 mile SW of the cape, a conspicuous sandy hillock, 42m high, affords a good mark from seaward. Four islets, joined by reefs and above-water rocks, extend about 1.7 miles ENE from Mys Kastrikum. A bank, with depths of less than 18m and having tide rips above it, extends about 1.5 miles E and 1.2 miles N of the outer islet. Thick beds of kelp are found in the vicinity of the cape, and the tidal currents are strong.

Banka Dvukhmetrovaya (Kombu Se), a 2.9m patch, marked by a thick growth of kelp, lies about 5 miles SW of Mys Kastrikum, and about 1.5 miles offshore.

Kaimen Zan (46˚08'N., 150˚17'E.) has three summits and is conspicuous from SE.

4.31 Mys Khiva (Hiyori Zaki) (46˚04'N., 150˚19'E.), 15 miles SW of Mys Kastrikum, has cliffs 38m high and is conspicuous from a distance. An islet, 36m high, lies close off its S side. A steep-to patch, with a depth of 4.1m, lies about 1 mile SE of Mys Khiva.

Mys Temnyy (Ana Zaki), about 9 miles farther SW, is a salient rocky point, 51m high. A large cave on the S side of its extremity shows up from the SW. Togari Iwa, a detached pointed rock, is conspicuous about 1.2 miles S of Mys Temnyy.

Mys Razmytyy (Chuo Zaki) (45˚50'N., 150˚02'E.), 10 miles SW of Mys Temnyy, has a flat islet, 30m high, close off it.

Mys Etolina (Garan Zaki), about 5 miles farther WSW, is a prominent high point with cliffs formed of columnar rocks. The point is surmounted by two hills, the S of which is 127m high and can be identified when the mountains are obscured by fog, except when it is covered by snow.

Anchorage.—In good weather, temporary anchorage can be taken by vessels with local knowledge in the bay NE of Mys Etolina. The best berth is in 22m, sand, good holding ground, with Mys Etolina bearing 237˚, distant about 1.5 miles. Vessels at anchorage here may roll heavily at times.

Mys Kuzinoty (Kushino Misaki) (45˚34'N., 149˚32'E.), 21 miles SW of Mys Etolina, is a high point, which appears from the SW to have a serrated crest. A conspicuous 40m rock lies close off its extremity.

4.32 Northwest side of Ostrov Urup.—Mys Van-der-Lind (Nobunotsu Misaki) is the cliffy extremity of a plateau, about 101m high, forming the SW extremity of Ostrov Urup. A bank, with depths of 18.3m and less, over which the strong tidal currents raise dangerous tide rips, extends about 2 miles SW of the cape. Near the middle of this bank, about 0.7 mile offshore, is a rock on which the sea usually breaks.

A light is shown, and a radiobeacon transmits, from a structure on Mys Van-der-Lind.

Satano Iwa (Totano Iwa), a small islet, lies about 1.2 miles N of Mys Van-der-Lind. About 1 mile NE of this islet is Uchino Iwa, consisting of two small rocks.

Zaliv Shchukina (Futagojima Hakuchi) (45˚38'N., 149˚27'E.), between Uchino Iwa and Ostrov Krab (Futago Jima), a flat-topped islet about 2.8 miles NNE, offers temporary anchorage for small vessels from all but W winds. A good berth lies in a depth of 18m, good holding ground, about 0.7 mile S of Ostrov Krab. The tidal currents are strong and vessels sometime roll heavily. This anchorage can be considered safe during the summer.

Tides—Currents.—The tidal current sets NE in the area 1 to 2 miles SW of Ostrov Krab from 2 to 3 hours after LW until 2 or 3 hours after HW. At other times the current sets S. The maximum velocity is 1 knot.

Mys Tetyayeva (Taka Saki), about 1.5 miles NE of Ostrov Krab, is a prominent headland, 156m high, and faced with a conspicuous, brown cliff on its S side.

Between Mys Tetyaeva and Mys Sevryuga, another high point 8 miles NE, the coast consists mostly of high cliffs fringed with boulders. It is backed by hills and in it are the mouths of several streams. The cliffs for 3 miles NE of Mys Tetyaeva are light gray and prominent. In the vicinity of Mys Sevryuga the cliffs are red.

A remarkable waterfall breaks over cliffs, 285m high, 3.2 miles NE of Mys Sevryuga.

4.33 Reyd Otkrytyy (Reid Otkhpytiy) (45˚52'N., 149˚46'E.), fringed with kelp and rocky shoals off beaches of gravel and stone, has depths of 18.3m about 0.7 mile offshore. Tokotan Kawa, a river with a small lake upstream, flows into the roadstead. A conspicuous sandy cliff, about 0.6 mile NE of the river mouth, affords a mark to vessels entering the roadstead. Gora Rudakova (Daiba Yama), with a prominent rocky cliff on its N side, rises about 1 mile NE of the cliff.

Tides—Currents.—The flood tidal current sets SW between 1 and 3 miles offshore of Reyd Otkrytyy, and the ebb NE. The SW current is of longer duration than the NE current and attains a velocity of 1.5 knots. The NE current runs for 1 hour or so after HW, with a velocity not exceeding 1 knot.

Anchorage.—The recommended anchorage is in a depth of 20m, fine sand, with the mouth of Tokotan Kawa bearing 122˚, distant about 0.8 mile. Caution must be exercised as a rocky shelf, with depths of less than 5.5m, extends about 0.4 mile NNW of the mouth of the river. This anchorage is usually safe in summer, but the tidal currents are strong and the bottom slopes steeply.

Vulkan Tri Sestry (Iwo Yama) (45˚56'N., 149˚55'E.) has three peaks, the N peak being sharp and conspicuous. Mara Yama, a conical mountain, about 1.5 miles SW, can sometimes be identified when the mountains NE are obscured by fog.

4.34 Gora Kolokol (Uruppo Fuji) (46˚02'N., 150˚04'E.), the highest mountain N of Reyd Otkrytyy, is conical and prominent.

Zaliv Natalli (Tsurigane Wan) is entered between **Staten Misaki** (46˚06'N., 150˚05'E.) and Mys Yakor' (Nobu Misaki), a steep headland, about 6 miles NE. In general, the bay is exceedingly deep, with mountains rising close to its shores.

Aspect.—Gora Nepristupnaya (Gyuto Zan), with a conspicuous rock summit, rises about 1.5 miles SSW of Staten Misaki, and Aka Yama, reddish in color, is conspicuous about 2 miles S of the same headland. Gora Antipina (Tsurigane Yama), with two pointed summits, rises about 2.5 miles E of Mys Yakor', the upper part of its W slope being formed by nearly perpendicular cliffs.

Anchorage.—Zaliv Natalli offers good anchorage, except during NW winds, in a depth of about 18m, fine sand, good holding ground, near the head of the bay. At greater distances offshore the depths increase rapidly, and caution must be exercised as the 200m curve lies between 1 and 2 miles off the head of the bay.

Bukhta Novokuril'skaya (Mishima Wan) (46˚13'N., 150˚20'E.) offers anchorage to small vessels with local knowledge in 21m, sand, with the conspicuous pointed rock, 20m high, close inshore on the E side of the bay, bearing 105˚, distant about 0.5 mile.

Kamome Jima, a flat, rocky islet, 5.5m high, lies about 0.5 mile offshore, 3 miles E of the E entrance point of Bukhta Novokuril'skaya.

Daisanto Zan (46˚11'N., 150˚23'E.) has three summits in a N-S direction.

Proliv Friza (Etorofu Kaikyo)

4.35 Proliv Friza, a deep unobstructed strait, leads between the SW extremity of Ostrov Urup and the NE end of Ostrov Iturup (Etorofu Jima), about 22 miles W. A bank, with depths of 18.3m and less, over which the tidal currents raise dangerous tide rips, extends about 2 miles SW of the SW extremity of Ostrov Urup. Near the middle of this bank is a rock over which the sea usually breaks. There are no dangers on the W side of the strait.

Winds—Weather.—The prevailing wind is NW during winter. The mean wind velocity is 13 to 18 knots.

Ice.—In Proliv Friza, the drift ice generally appears at the end of February and is not found after the middle of May.

Tides—Currents.—Though complete observations are not yet available, it appears that in Proliv Friza the flood tidal current is N and the ebb is S, the change occurring from 1 to 2 hours after HW or LW. However, the set through the strait is extremely irregular, because of the influence of the warm and cold ocean currents which flow near its N and S entrances, respectively.

In summer, about 13 miles E of Mys Il'ya Muromets (Rakkibetsu Misaki), the S current exceeds 2 knots in velocity, changing to a N current about 2 hours after LW. About 3 miles off the coast of Ostrov Iturup, there appears to be a constant S current, which may attain a velocity of 4.5 knots off Mys Il'ya Muromets. Several miles off Ostrov Urup there appears to be a constant N current, and a velocity of 4.8 knots has been experienced.

Ostrov Iturup (Etorofu To) (Etorofu Jima)

4.36 Ostrov Iturup, the largest and most important island of the Kuril Islands, is mountainous and rugged. The coasts of the island are mainly steep-to with no dangers outside of 1 mile offshore.

Winds—Weather.—Ostrov Iturup has strong NW winds, accompanied by heavy seas, from late October until the end of April. In summer, SE winds prevail. At Kuril'sk (Shana), on the NW coast, NW to W winds are predominant from November to March. The winds are variable the remainder of the year, with E to SE winds predominating from June to September. The average wind velocity is highest (18 knots) in December, and lowest (8 knots) in July. Extreme velocities of over 70 knots have occurred in the winter months.

Kuril'sk has a mean annual temperature of 4.4˚C. Extreme maximum readings of 30.6˚C have been made in July and August, and readings as low as -24.4˚C have occurred in February and March. Subfreezing temperatures have been read in all months except August.

At Kuril'sk, snow falls on an average of 144 days. It may be expected daily in December and January, and in both February and March, the average is about 25 days. The falls are light and dry, and the annual precipitation of rain is only 15.5cm.

The NW side of Ostrov Iturup is the most clear of fog, and at Kuril'sk there is an average of 46 days with fog annually, of which 42 days are from April to August, 12 days being in the month of July. The most frequent fogs are found on the SE coast of the island from June to August, with very few clear days.

Ice.—On the NW side of Ostrov Iturup there is drift ice from January on. These floes freeze together and form ice-floes which drift about, influenced by the winds and currents. Floes carried S become stranded on the shores of the bays, and freeze together forming a mass of ice, which by February may extend several miles offshore, with a thickness of about 3m. This ice breaks up in April and finally disappears in May.

On the SE side of the island, the bays do not freeze over, and are seldom obstructed by drift ice.

Tides—Currents.—A warm ocean current flows NE through the sea of Okhotsk off the NW side of Ostrov Iturup. Off the SE side of the island, a cold current flows mainly SW. The velocities do not exceed 1 knot.

On the SE side of Ostrov Iturup the flood tidal current has a general SW set. The ebb current is NE, but because of the influence of the SW ocean current the flow in the flood direction is longer in duration and somewhat greater in velocity. Velocities of more than 2 knots may be attained W of Mys Urumpet (Urombetsu Misaki), near the SW end of the island. Velocities E of the same point are less than 1 knot, and the directions are irregular.

On the NW side of Ostrov Iturup, SW of Mys Przheval'skogo (Notoro Misaki), the flood tidal current follows

the coastline, flowing SW or into the bays, and the ebb current takes an opposite direction. The velocities seldom exceed 1 knot, except off Mys Bol'shoy Nos (Poronotsu Bana), where they may be greater than 2 knots. In areas other than that near Proliv Yekateriny (Kunashiri Suido) the flow is influenced by the ocean current which sets NE, the velocity in that direction being somewhat greater. Off Mys Przheval'skogo the flood current is NE and the ebb is SW, the change occurring about 1 hour after HW or LW. Maximum velocities of 2 knots during the flood and about 1.5 knots during the ebb are attained.

Between Mys Przheval'skogo and Kuril'skiy Zaliv (Shana Wan) the flood current sets E or towards the coast, and in the opposite direction during the ebb, the velocities not exceeding 0.5 knot. Near the N extremity of Poluostrov Chirip (Chirippu Santo) it appears that in summer the resultant current is always W, and during the flood current a velocity of 1.5 knots may be experienced. Between Poluostrov Chirip and Mys Friza (Shibetoro Misaki) the flood current is usually SW and the ebb NE, but both are irregular. The velocities seldom exceed 1 knot, except in the vicinity of Mys Friza, where a velocity of 2 knots may be attained.

4.37 Southeast side of Ostrov Iturup.—Mys Il'ya Muromets (Rakkibetsu Misaki) (45˚30'N., 148˚54'E.), the extremity of Ostrov Iturup, has vertical cliffs in its vicinity. A large conspicuous waterfall at the cape plunges into the sea from a height of 140m.

Bukhta Medvezh'ya (Moyoro Wan), close S of Mys Il'ya Muromets, offers shelter from winds between the SSW and NNW. Strong tidal currents and the abruptly shelving bottom of sand make precautions against dragging necessary. Heavy swells are frequently encountered, particularly with E winds.

Ice.—It is reported that this bay is rarely blocked by drift ice.

Tides—Currents.—The flood tide sets NE while the ebb tide sets SE. Either current may attain a velocity of 3 knots.

Aspect.—Gora Medvezh'ya (Moyoro Dake) (45˚23'N., 148˚51'E.), with a pointed summit, is one of several peaks S of the bay. Io Dake, the W peak, constantly emits white smoke. The mountains are colored yellow in places by sulphur.

The chimneys of the sulphur refinery at Medvezh'e (Moyoro), in the SW part of the bay, are conspicuous. A conspicuous cable railway extends S of the town to a spur of the mountains.

Anchorage.—To avoid W squalls from the valley, the recommended anchorage is NE of Medvezh'e in a depth of about 17m, sand, with the point E of the town bearing 175˚, distant about 0.5 mile.

Mys Sevorsi (Seoroshi Misaki) (45˚19'N., 148˚45'E.) is a high, cliffy, steep-to point. A flat-topped hill rises to an elevation of 567m, 1 mile to the NW.

Mys Razdel'nyy (Toshiruri Misaki) (45˚15'N., 148˚30'E.), a low, flat point lying 12 miles WSW of Mys Sevorsi, has a chain of small rocks extending 0.8 mile S. The rocks show up well from the NE or SW. Gora Golets (Rucharu Yama), a flat, rounded mountain, about 6.5 miles W of the point, is conspicuous from the S.

Mys Yevgeniya (Otochishi Misaki), a cliffy point, about 11 miles WSW of Mys Razdel'nyy, is 145m high, has no trees, and appears as an island from a distance. Mys Isoya (Isoya Misaki), about 5 miles farther SW, is surmounted by a conspicuous, rocky hill, 76m high, which appears as a large, solitary building from a distance S.

Vulkan Teben'kova (Odamoe Yama) (45˚02'N., 147˚55'E.) is the summit of, and lies at the E end of, a conspicuous mountain range. Tsurarippu Yama, about 2 miles WSW, has a jagged summit, which sometimes emits white smoke, and there are conspicuous red cliffs on its S and E sides.

Zaliv Kasatka (Hitokappu Wan) is entered E of **Mys Burevestnik** (Uembetsu Saki) (44˚55'N., 147˚40'E.), a point fringed by a rocky shoal, covered with seaweed and extending about 0.4 mile offshore. Mys Burevestnik is backed by a level plateau, about 15m high, extending 7.5 miles SW, and extending to the foothills of Gora Burevestnik, a peak rising about 9 miles WSW of the point.

Winds—Weather.—In Zaliv Kasatka, N winds prevail from September to April, and S winds for the remainder of the year. In February and March, occasional SE gales raise heavy seas in the bay. During E and SW winds, the sea may be choppy.

Between the middle of December and the middle of March, the snowfall may be as much as 0.9m. April is generally clear, and in May, the rainy month, the precipitation is very light. Fogs are numerous from the latter part of May until the middle of July.

Ice.—Zaliv Kasatka is seldom icebound. Drift ice may occasionally enter the bay during April, especially during strong S winds.

Aspect.—A light is shown from Mys Burevestnik. A light is shown, also at Toshimoye, in the NE part of the bay.

Anchorage.—Adequate shelter can be had, depending on the direction of the wind, off the town of Kasatka (Toshimoye) in the NE part of the bay, in a depth 10m, sand, about 0.6 mile offshore. Anchorage may also be taken off the town of Burevestnik (Uembetsu), in the SW part of the bay, in a depth of 12m, sand, about 0.3 mile offshore.

The holding ground is not good in these anchorages, and there is danger of dragging, especially during strong S winds. The mountains on either side of the bay offer shelter from SW or NE winds.

4.38 Mys Urumpet (Urumombetsu Saki) (44˚35'N., 147˚15'E.), about 26 miles SW of Mys Burevestnik, is a headland formed by cliffs, 196m high, which terminate a mountain ridge. Ostrov Odinokiy (Tori Shima), a group of five rocks, the highest of which is 51m, lies about 0.7 mile ENE of the point and is conspicuous from a distance.

Mys Burunnyy (Busso Saki), about 2.5 miles SW of Mys Urumpet, is a treeless point with a rocky islet lying close off it. A waterfall, on a cliff about 1 mile W of the point, is conspicuous.

Vulkan Berutarube (Berutarube Yama) (44˚28'N., 146˚56'E.), on the SW end of Ostrov Iturup, is conspicuous from a distance and joined by low land on its NE side to the remainder of the island. Mys Rikorda (Shikaragarishi Saki), a S spur of Vulkan Berutarube, is a high cliff of a faded red color, with a saddle-backed summit.

Tides—Currents.—In the vicinity of Mys Rikorda the flood tidal current follows the coast in a SW direction, and the ebb is

NE, with velocities exceeding 3 or 4 knots being attained. Tide rips occur when the currents are at strength.

4.39 Northwest side of Ostrov Iturup.—Mys Gnevnyy (Berutarube Saki) (44˚27'N., 146˚52'E.), about 3 miles W of Vulkan Berutarube, is the steep-to W end of Ostrov Iturup.

Zaliv Dozornyy (Tannemoe Wan), a bight about 6 miles NE of Mys Gnevnyy, offers anchorage to vessels with local knowledge, but is exposed to considerable swell. Vessels at anchor swing to the strong tidal currents. Winds from the NE through E to SW blow across the low land at the head of the bay from an E direction due to the configuration of the land. A submarine telegraph cable is laid from the head of the bay.

Zaliv L'vinaya Past' (Moekeshi Wan) (44˚37'N., 147˚00'E.), formed by a crater breached by the sea, should be avoided. During gales from all directions except the N, violent winds sweep down from the hills encircling the inlet.

Zaliv Dobroye Nachalo (Naibo Wan) (44˚43'N., 147˚08'E.) offers the best anchorage on the NW side of Ostrov Iturup. The bay is entered between Mys Kabara (Kabara Misaki), the E entrance point of Zaliv L'vinaya Past', and a peninsula about 10 miles NW, on which stands Gora Atsonupuri (Atosa Nobori), an isolated volcano. Gora Atsonupuri has a conspicuous gray landslip on its NW slope. The N half of the head of the bay is a sandy beach, through the middle of which flows the river Tikhaya (Onnenaibo Betsu).

Heavy fogs frequently enter the bay through the valleys on either side of the range of hills in the S part of the head of the bay.

Anchorage.—The recommended anchorage for vessels with local knowledge is in 10 to 20m, fine sand, between 0.4 mile and 1 mile W of the mouth of the Tikhaya.

Odesskiy Zaliv (Utasutsu Wan), E of the peninsula of Gora Atsonupuri, is exposed N. Small vessels, with local knowledge, can anchor off the towns at the NE and SW end of the sandy beach at the head of the bay.

Caution.—A detached reef, with a least depth of 11.4m, lies about 3.5 miles W of the mouth of the Tikhaya.

4.40 Gora Stokap (Hitokappu Yama) (44˚50'N., 147˚21'E.), a volcano with a dome-shaped summit, has a conspicuous landslip on its W side. A mountain range extends about 6 miles ENE from this volcano, then descends abruptly, terminating in low terraces.

Bukhta Zolotaya (Furebetsu Byochi), a small cove, is entered between **Hatcho Shima** (45˚04'N., 147˚32'E.), a conspicuous black islet, and the S side of two drying rocks, about 240m N.

Mys Przheval'skogo (Notoro Misaki) (45˚06'N., 147˚30'E.), 59m high, is the dark, flat-topped extremity of a peninsula, about 3 miles long. A conspicuous rock lies close off the W end of the point. A drying rocky ledge extends about 0.1 mile NW of the rock. Mys Ksana (Sango Saki), the N extremity of the peninsula, lying 0.6 mile NE of Mys Przheval'skogo, has an above-water rock, 5m high, near the extremity of a reef extending about 0.2 mile N of the point. The rock shows up well from E and W. Tide rips are often formed ENE of Mys Ksana.

Anchorage.—Large vessels anchor near the 20m curve, which is about 0.3 mile W and 0.4 mile NW of Hatcho Shima, and about 0.4 mile off the shore SE of Mys Przheval'-skogo.

4.41 Zaliv Kuybyshevskiy (Rubetsu Wan) (45˚06'N., 147˚40'E.) does not afford safe anchorage. The bay is open to onshore winds and also to the winds that traverse across the island through the valley at its head. The holding ground of fine sand over rock is not good.

Winds—Weather.—In Zaliv Kuybyshevskiy, NW winds prevail in winter, and those between E and S predominate in spring and summer. A SE gale in summer is nearly always followed by a NW wind. The worst season of the year is autumn with E gales.

Fogs begin to develop in the latter part of March and continue until September, being most numerous in June and July.

Ice.—The bay may be obstructed by drift ice, which enters with winds between W and N, and is driven out by winds from between E and S, between the middle of January and the end of May. The floes are often heavy, and have been observed to pile up to a thickness of about 3m.

Aspect.—Gora Pereval'naya (Nobori Yama) (45˚09'N., 147˚49'E.) has a flat summit, and is the summit of the high land on the E side of the bay.

Riuyenshiri, a 59m hill, backs a small point, about 0.5 mile SW of the mouth of the river at Kuybyshevka (Rubetsu) (45˚06'N., 147˚42'E.).

Anchorage.—In good weather, a vessel, with local knowledge, can anchor in 11m off the town of Kuybyshevka, with Riuyenshiri bearing 173˚, distant about 0.6 mile.

4.42 Kuril'skiy Zaliv (Shana Wan) (45˚14'N., 147˚51'E.) lies on the W side of the inner end of Poluostrov Chirip (Chiruppu Hanto), the large mountainous peninsula projecting N from the middle part of Ostrov Iturup. The peninsula has two summits. Kita Chirippu Zan, the N summit, is somewhat flat-topped. Minami Chirippu Zan, the S summit, has a pointed summit. Between these two summits is the crater of a dormant volcano, which has precipitous sides, either dark red or brown, and is conspicuous.

Winds—Weather.—See general description of winds, weather, and fog for Ostrov Iturup.

Ice.—Along the shores of Kuril'skiy Zaliv, thin ice forms usually in the latter part of January. At about the middle of February, drift ice is carried into the bay by W or NW winds and often cements into solid fields. Winds from between the E and S drive the ice out of the bay, and it generally disappears by the latter part of April.

Aspect.—A meteorological observatory, at which storm signals are shown, is situated close N of the river mouth at Kuril'sk (Shana). A conspicuous temple is situated on the SW bank of the river, about 0.2 mile SE of the river mouth. A prominent radio mast surmounts a 23m hill, about 0.3 mile E of the temple.

Anchorage.—Anchorage can be taken by vessels with local knowledge in 12.8m, sand, with a prominent mast situated about 0.3 mile NNW of the temple, bearing 075˚, distant 0.7 mile. With strong winds between the N and W, which raise

heavy seas, there is danger of dragging and vessels should leave the anchorage immediately.

Nayoka Wan, entered S of **Ikabanotsu Saki** (45˚16'N., 147˚52'E.), is not safe with winds from between the SW and NW, as the bottom consists of sand over rock. Ice conditions are similar to those in Kuril'skiy Zaliv.

Anchorage.—Anchorage can be taken by vessels with local knowledge in a depth of 16m, with Ikabanotsu Saki bearing 322˚, distant about 0.5 mile.

Two rivers enter the sea about 4.5 miles and 6.5 miles N, respectively, of Mys Ikabanotsu. The water in the latter river is muddy and of a bluish-green color, and can be distinguished from the sea water for about 1 mile offshore. Parachirippu Iwa, a conspicuous, square rock, 61m high, lies close inshore, about 1.5 miles NNE of the N river mouth.

4.43 Mys Breskens (O Misaki) (45˚26'N., 147˚56'E.), the N extremity of Poluostrov Chirip, is steep-to and flat-topped. It only shows up from the E or W. A radiobeacon is situated on the cape.

Tides—Currents.—About 1.5 miles off the coast between Mys Breskens and Mys Shpora (Onneshireyeto Bana), about 2 miles SE, the current always sets NW, with velocities of 0.5 to 1.5 knots.

Bukhta Konservnaya (Shamambe Byochi), entered S of **Mys Konservnyy** (Kukidono Saki) (45˚20'N., 148˚01'E.), has comparatively steep shores. On its W side are the cliffy, densely wooded slopes of Minami Chirippu Zan, by which it is sheltered from NW winds. Pon Nobori, a conspicuous hill, about 2.3 miles S of Mys Konservnyy, is a good landmark.

Ice.—In Bukhta Konservnaya and Reyd Udobnyy (Bettobu Byochi), fast ice may be expected to form in the early part of January, and to remain until the beginning of May. Drift ice may obstruct these anchorages from the middle of February until the latter part of April.

Anchorage.—The recommended anchorage is in a depth of about 27m, sand, with Mys Konservnyy bearing 354˚, distant a little more than 0.4 mile.

4.44 Reyd Udobnyy (Bettobu Byochi), a roadstead at the S end of the E side of Poluostrov Chirip, lies on the E side of **Iju Bana** (45˚17'N., 148˚02'E.), a small promontory. Foul ground extends about 0.4 mile off the W side of the roadstead. The shore bank on the S side extends about 0.3 mile offshore.

Tides—Currents.—In Reyd Udobnyy the currents flow roughly E and W; the E current having its maximum rate from 2 to 3 hours before HW, and the W current from 2 to 3 hours before LW. The E currents following the LLW and the succeeding W currents are the stronger and attain rates of 1 knot.

Aspect.—Parasan Yama, about 6 miles S of Iju Bana, is a ridge running E and W, with a large columnar rock on it, conspicuous from a distance. Fuyuni Nobori, a mountain with a flat, thickly wooded summit, rises about 7 miles ESE of Iju Bana.

Anchorage.—Reyd Udobnyy has a bottom of sand, good holding ground, and there is little swell. Local vessels usually anchor in a depth of 20m, with the summit of Iju Bana bearing 272˚, distant about 0.9m. During the fishing season, caution should be exercised because of nets.

4.45 Shusu San (45˚13'N., 148˚15'E.) is a hill rising in the S part of a range of hills traversing Ostrov Iturup in a SSE-NNW direction. Conspicuous white cliffs, about 91m high, fringe the coast at the N end of these hills. Particularly good shelter is afforded N of the white cliffs.

A plain, covered by coarse grass and shrubs, occupies the narrowest part of Ostrov Iturup, E of the above-mentioned range of hills. In summer, during SE winds, thick fog may arrive over this plain from the Pacific Ocean, occasionally covering the sea area in its vicinity.

Gora Sibetoro (Shibetoro Dake) (45˚24'N., 148˚35'E.) is not discernible because of other mountains in its vicinity. A prominent mountain, with a conspicuous sharp peak, 647m high, rises about 2.5 miles SW of Gora Sibetoro. A peak, surmounted by a triangular, sharp-point rock, prominent from the N, rises about 1 mile N of Gora Sibetoro. About 1 mile farther NW, a mountain with two sharp summits also serves as a good mark.

Soi Sho (45˚28'N., 148˚32'E.), a detached rock with a depth of 2.3m, lies about 0.8 mile offshore. Another rock with the same depth lies about 0.6 mile SW of Soi Sho.

4.46 Bukhta Slavnaya (Shibetoro Byochi) is entered between **Ostrov Shlem** (Daikoku Shima) (45˚29'N., 148˚35'E.) and Mys Friza (Shibetori Misaki), about 4 miles NE. Ostrov Shlem lies about 230m offshore. Its N side, whitened by guano, is conspicuous. Mys Friza is a black, rocky cliff, which is conspicuous from the SW or NE. A large pointed rock, 11m high, lies about 0.4 mile NE of the cape.

Hatcho Iwa, a rock 0.6m high, lies about 0.8 mile ENE of Ostrov Shlem. Benten Shima, a cliffy islet, about 1.5 miles ENE of Ostrov Shlem, has a small but conspicuous shrine on its grassy summit. A reef, with a least depth of 0.5m, extends about 0.3 mile NW from the islet. A rocky spit, with several drying rocks near its extremity, extends about 0.5 mile WSW of a point lying 1 mile SW of Mys Friza.

Winds—Weather.—Light E winds may be experienced in Bukhta Medvezh'ya, simultaneously with violent offshore squalls being experienced in Bukhta Slavnaya.

Tides—Currents.—In the vicinity of Mys Friza the tidal currents are irregular and the bottom is uneven.

Anchorage.—The anchorage in the S part of the roadstead is in a depth of about 24m, fine sand, with Hatcho Iwa bearing 197˚, distant 0.3 mile. Anchorage can also be taken in depths of 12.8 to 20.1m, fine sand, between Benten Shima and the extremity of the rocky spit about 1.2 miles NE.

The anchorage is fairly safe during the SE winds of summer, but with NW winds vessels should leave the anchorage, or seek shelter in Bukhta Medvezh'ya.

The coast from Mys Friza to Mys Koritskiy (Kamoiwakka Misaki), about 4 miles E, is rugged and nearly steep-to with the 20m curve about 0.3 mile offshore.

The summit of **Gora Kamuy** (Kamoi Dake) (45˚31'N., 148˚48'E.), a large flat-topped mountain, has a range curving NW from it and terminating in cliffs about 3 miles E of Mys Friza. Close S of the above-mentioned cliffs are two prominent, pointed peaks, which are frequently visible when Gora Kamuy is enveloped in cloud or fog. The precipitous coast between Mys Koritskiy and Meekushi Misaki

(Miyekushi Bana), about 3.5 miles E, has a conspicuous 76m waterfall near its middle part.

Proliv Yekateriny (Kunashiri Suido)

4.47 Proliv Yekateriny, a deep strait, leads between the SE end of Ostrov Iturup and **Mys Lovtsova** (Atoiya Misaki) (44˚27'N., 146˚35'E.), the NE extremity of Ostrov Kunashir (Kunashiri Shima). The strait is about 12 miles wide in mid-channel and clear of dangers with the exception of the foul ground extending NE of Mys Lovtsova.

Ice.—The strait is generally clear of drift ice by the end of April, but may become ice-free as early as February. Ice may remain until the early part of May. There is usually less ice on the E side of the strait.

Tides—Currents.—In Proliv Yekateriny, the flood tidal current is S and the ebb is N. The change occurs at nearly HW and LW. The tidal currents do not attain any great rate and are somewhat irregular.

During the summer, a strong S current in mid-channel opposes the N ebb current, and except near the coast, there is a resultant S set which may attain a velocity of 5 knots. Strong eddies sometimes extend from the side of the strait.

Caution.—A Traffic Separation Scheme is located in the strait.

Ostrov Kunashir

4.48 Ostrov Kunashir, the SW island of the Kuril Islands, is mountainous. **Gora Tyatya** (Chacha Dake) (44˚21'N., 146˚15'E.), in the NE part of the island, is the summit of Ostrov Kunashir. **Vulkan Mendeleyeva** (Shimanobori Yama) (43˚59'N., 145˚44'E.), an extinct volcano, is conspicuous in the SW part of the island. The SW half of the island is partly surrounded by the E coast of Hokkaido and the Habomai Islands (Suisho Shoto), for which reason Ostrov Kunashir is sometimes mistaken for part of the Hokkaido mainland when seen from S.

Winds—Weather.—On the coasts of Ostrov Kunashir, the strongest winds are from the NW. From early September to the latter part of April, NW winds prevail, and after November they are usually accompained by snow, making the area most dangerous to mariners.

Snowfall usually occurs from the early part of November to the middle of May. From January to March, the coasts of Ostrov Kunashir may be icebound, interrupting communication by boat.

On all sides of Ostrov Kunashir fog may be experienced, but it occurs with much greater frequency on the SE coast. The season lasts from early May to late August, the heaviest fogs developing during June and July, and the frequency and density depending entirely upon the wind direction. With NW winds, the fogs are dissipated and clear weather results, but S winds cause thick weather. Fogs do not usually occur with W winds, which are rare during summer, and they are somewhat thin during E and N winds.

Tides—Currents.—Off the N half of the SE coast of Ostrov Kunashir, about 2 to 3 miles offshore, the flood tidal current is W and the ebb is E, the change occurring at the times of HW and LW. The flood current is influenced by an ocean current which sets in the same direction, thereby flowing somewhat longer and with greater velocity than the ebb. In general, the W current increases its rate with the longitude. Off Mys Yuzhno Kuril'skiy (O Saki), the maximum velocities of the W and E currents, respectively, are 0.8 knot and less than 0.5 knot. At a distance of 4 to 5 miles off Zaliv Spokoynyy (Shiranuka Wan), the flood current is about 2 knots and the ebb about 1 knot.

Along the NW coast of the island, the flood current is SW and the ebb flows NE, but neither current attains any great rate. Because of the influence of a S ocean current, the set in this area is almost always SW, and when the flood current is at strength, the velocity may be as much as 2 knots.

Off the N coast of the island, at a distance of about 2 miles, there is almost always an E set, a velocity of 1 knot being attained at flood strength. In the vicinity of Mys Dokuchayeva (Rurui Misaki) an E set of 1.8 knots has been experienced.

4.49 Southeast side of Ostrov Kunashir.—Mys Lovtsova(Atoiya Misaki) (44˚27'N., 146˚35'E.), a low tongue of land, is the NE extremity of Ostrov Kunashir. Inari Yama, a prominent, isolated hill, rises to an elevation of 151m, about 1.2 miles SW of the point. A light is shown from Mys Lovtsova and a radiobeacon transmits from this structure. Ostrov Benten (Benten Jima), a steep, rocky islet, with a sharp, grassy summit, 49m high, is conspicuous about 0.2 mile NE of the extremity of Mys Lovtsova. A drying reef extends 0.7 mile NE of Ostrov Benten to Skala Morzhovaya (Tokkari Iwa), a double-peaked rock that dries 1.5m. A reef, with a depth of less than 2m, extends about 1 mile NNE of Skala Morzhovaya. A bank, with depths of 14.6 to 18m, extends about 1.3 miles farther N. With a light swell, the bank and reef are marked by breakers.

Anchorage.—Anchorage can be taken on the E side of Mys Lovtsova, about 0.5 mile offshore, in depths of 12.8 to 14.6m, sand, good holding ground, with Inari Yama bearing 340˚, distant about 0.9 mile.

The section of coast to a distance of 2 miles SSW of Mys Lovtsova consists of low sandy beach. The E coast of the peninsula, to Mys Spokonyy (Akaishi Hana), consists of cliffs and precipitous bluffs gradually increasing in height toward Mys Spokonyy. Jigoku Yama, 253m high, about 1 mile NNE of Mys Spokonyy, is the summit of the peninsula, and is conspicuous from the S. This section is characterized by foul weather and is considered to be the most dangerous area on the SE coast of Ostrov Kunashir.

4.50 Zaliv Spokonyy (Akaishi Hana), entered W of Mys Spokonyy, is sheltered E and W by mountains on either side. A reef, near the middle of the roadstead, dries 1.5m at its W end, and except when the sea is smooth, it is usually marked by breakers.

Ice.—Drift ice enters Zaliv Spokonyy with winds between SE and S. Winds from the NE or SW drive the ice out of the bay.

Anchorage.—During the NW winds of winter, good anchorage is obtainable in a depth of 22m, sand, with **Mys Mysovoy** (Okappuno Misaki) (44˚16'N., 146˚18'E.) in line bearing 233˚ with Rausu Dake, a rounded summit about 1 mile S of Vulkan Mendeleyeva (Shimanobori Yama), and with Mys Spokonyy bearing 098˚.

Northeast end of Ostrov Kunashir from SE

Gora Tyatya (Chacha Dake) (44˚21'N., 146˚15'E.) is conspicuous from all directions with favorable weather conditions, and though usually enveloped in clouds of fog, it is more frequently visible than Gora Rurui, about 8 miles NW. Maru Yama, a solitary peak with a rounded summit rising from the gap between the above-mentioned peaks, is conspicuous from the NE or SW, and often can be made out when the higher peaks are obscured.

Reyd Tyatinskiy (Chinomiji Hakuchi) (44˚16'N., 146˚11'E.), a small roadstead, has a generally rocky bottom and is not recommended in bad weather. In summer, small vessels, with local knowledge, can usually take temporary anchorage.

The shore of the bay is of black sand, backed by a narrow strip of grass. Except at the head of the bay, it is fringed with rocks and reefs, some of which dry. A bank, with depths of less than 5.5m, extends from it for up to 0.4 mile.

Ice.—There is fast ice at Reyd Tyatinskiy from January to the latter part of April, and drift ice, accompanying E and N winds, is usually found until the early part of May.

Mys Rogacheva (Ruyobetsu Misaki) (44˚11'N., 146˚03'E.) is a cliffy headland with a rounded summit more than 137m high. Ostrov Rogacheva (Ara Shima), a steep-to grassy islet, 56m high, about 0.3 mile SE of Mys Rogacheva, is the only islet off the SE coast of Ostrov Kunashir. The cape, with its off-lying islet, forms one of the most conspicuous landmarks on the SE coast of Ostrov Kunashir.

4.51 Mys Yuzhno-Kuril'skiy (O Saki) (44˚01'N., 145˚53'E.), 12 miles SW of Mys Rogacheva, is a low, treeless point, and the E end of a small peninsula, which appears as an island from a distance. A radiobeacon is situated on the cape. A low, white, sandy beach, extending about 3 miles N of the point, has a conspicuous, columnar rock, 31m high, at its N end. The reefs along this stretch are usually marked by breakers.

Bukhta Yuzhno-Kuril'skaya (Furukamappu Wan), entered SW of Mys Yuzhno-Kuril'skiy, has low land extending from its head across Ostrov Kunashir, but hills rise steeply to elevations of about 50m on either side of the bay. A rock, with a depth of 5m and seldom marked by breakers except with a S wind, lies about 1 mile WSW of Mys Yuzhno-Kuril'skiy.

Yuzhno-Kuril'skiy (Furukamappu) (44˚01'N., 145˚51'E.) (World Port Index No. 61080) lies on the NE shore of the bay. At Seseki, about 3 miles SW, two piers about 79m long extend from the shore. An offshore pipeline facility, marked by two buoys, extended about 1.2 miles offshore in the vicinity of Seseki.

A remarkable black pointed rock, 5.5m high, lies 0.2 mile off the head of the bay, 2 miles W of Mys Yuzhno-Kuril'skiy.

Anchorage.—Bukhta Yuzhno-Kuril'skaya offers comparatively safe anchorage from all winds, except those between the S and SE. With strong NW winds, squalls descend from the mountains. The bay does not freeze over in winter, but drift ice may obstruct it in April and May. There is reported to be good holding ground of sand in depths of about 9m in the middle of the bay.

Anchorage may be taken in a depth of 10m, fine sand, with the black pointed rock bearing 346˚, distant 0.8 mile, having regard to a detached shoal with a depth of 4.3m lying 0.4 mile SE of the rock. This berth, though safe from winds from the W to NW, was found to be unsuitable with a swell from the SE.

4.52 Vulkan Golovnina (Tomari Yama) (43˚50'N., 145˚30'E.), a dormant volcano in the form of an almost perfect cone, can be made out from a distance when the visibility is good.

Anchorage.—Temporary anchorage can be taken in 12.8m, sand, with Vulkan Golovnina bearing 264˚, and Vulkan Mendeleyeva bearing 023˚.

Temporary anchorage can also be obtained in 24m, about 1 mile E of Mys Mechnikova (Rausu Zaki), with Vulkan Mendeleyeva bearing 310˚, and Mys Yuzhno Kuril'skiy bearing 032˚.

Mys Veslovskiy (Keramui Saki) (43˚39'N., 145˚33'E.) is the extremity of the low sand spit, covered with grass, forming the S end of Ostrov Kunashir. The lighthouse and buildings in the vicinity sometimes resemble a ship from a distance. Rif Burun (Keramoi Sendan), a bank defined by the 10m curve, extends about 12 miles SE of the point. For a distance of about 9 miles offshore the depths on this bank are less than 5.5m in places. There is a least depth on the bank of 4.5m. Heavy seas are sometimes raised on the bank.

A bank, with depths of 18m and less, joins the S end of Ostrov Kunashir to the chain of islands lying SE. A 9.1m patch lies about 16 miles ESE of Mys Veslovskiy.

Zaliv Izmeny (Tomari Wan), a small bay formed on its E side by the long sandspit terminating in Mys Veslovskiy, offers safe anchorage for vessels of light or moderate draft.

Ice.—Drift ice may obstruct the anchorage between February and April. It is brought in by SW winds, and driven away by NE winds. It is reported that the floes do not exceed 20m in length, 10m in width, and 0.9m in thickness.

Aspect.—Vulkan Golovnina, N of the bay, can be made out in the offing. The red cliffs about 0.8 mile NW of Mys Paltusov (Notsueto Saki), the W entrance point of the bay, are very good landmarks and also show up well on radar.

Anchorage.—Anchorage can be taken in 6.4m, fine sand, about 3 miles NNW of the light on Mys Veslovskiy. Protection is afforded here from N winds, and S winds do not raise much sea.

Caution.—Care must be taken to avoid the shoal water extending about 1 mile W of Mys Veslovskiy, and the shoals extending 6.5 miles S of Mys Paltusov.

Nemuro Strait

4.53 Nemuro Strait (Nemuro Kaikyo) separates Ostrov Kunashir from the E coast of Hokkaido. The N part of the strait is very deep, but the S part is restricted by shoals.

Ice.—The only season free from considerations of drift ice in Nemuro Strait is usually from early May until late October. This ice, carried by wind and current, originates on the E coast of Sakhalin. The greater portion found in the strait comes from the N, but other floes of the Sakhalin ice drift SE through the S passages of the Kuril Islands and enter Notsuke Suido from the E, after combining with ice brought S by the Oyashio Ocean Current. By December, fast ice may extend to a considerable distance offshore in the strait.

Notsuke Suido (Proliv Izmeny), a passage about 9 miles wide, leads between the SW end of Ostrov Kunashir and Nokke Sake, on the E coast of Hokkaido. It is the narrowest part of Nemuro Strait. The passage is restricted by shoals, its navigable width, with depths of 5 to 10m, ranging from 1 to 2 miles. The shoals are continually shifting, and the irregular depths change frequently.

The coasts in the vicinity of the passage are low, with mountains rising at a distance and often obscured by fog, and the fairways are unmarked, causing navigation to be both intricate and dangerous. However, the passage is frequently clear in summer, even when belts of fog extend from the E extremity of Hokkaido to the S end of Ostrov Kunashir.

Vessels of less than 500 tons and a draft of less than 4m usually navigate this waterway.

Ostrov Kunashir (continued)

4.54 Northwest side of Ostrov Kunashir.—A volcano, formerly known as **Iwaoi Yama** (43˚54'N., 145˚30'E.), lies about 4 miles N of Vulkan Golovnina. It is 342m high with continuous white smoke being emitted from the mountain and from blow-holes on the nearby shore. A yellowish-gray cliff is on the NE side.

Mys Alkhina (Uenshiri Zaki), about 3 miles farther NE, is faced with dark cliffs and rises to a dome-shaped hill, surmounted by trees. Two sharp rocks, about 14m high, close offshore, about 1.5 miles NE of the point, are somewhat conspicuous from the N.

Between Mys Alkhina and Mys Stolbgatyy, 8 miles NE, the coast consists of sandy beaches fringed with rocky shoals.

Mys Stolbgatyy (44˚02'N., 145˚40'E.) is 26m high, faced with black rocks, and covered with scrub.

Bukhta Pervukhina is entered between Mys Stolbgatyy and Mys Spiridonova, 5.5 miles NE. The bay is exposed to N, E, and W winds, and the depths in it are shoal. The head of the bay is low, fringed with reefs, and backed by a lagoon. This low land extends across Ostrov Kunashir, but has on it three hills between 46m and 76m high, by which the bay may be identified.

Mys Spiridonova (44˚06'N., 145˚45'E.) is fringed with boulders and rises to a wooded mountain, 441m high.

Mys Krasiyiotes (Aka Zaki) (44˚09'N., 145˚47'E.), about 3.5 miles NE of Mys Spiridonova (Ikabanotsu Zaki), is fronted by conspicuous red cliffs, 183m high, and is a good mark. About midway between the two points is a rather conspicuous, high, black cliff.

Mys Prasolova (Chashikotsu Zaki) (44˚23'N., 146˚01'E.), at the N end of some very conspicuous red cliffs, has a high, pointed rock, conspicuous from the SW or NE, close off it. Mys Belyy Utes (Nokkappu Misaki), about 6 miles farther NE, has a white cliff, somewhat conspicuous from the SW, on its S side.

Mys Dokuchayeva (Rurui Misaki) (44˚31'N., 146˚11'E.), the N extremity of Ostrov Kunashir, a cliffy grass-covered headland, has a rocky shoal, always marked by breakers, extending about 0.2 mile N. Gora Rurui, which rises about 4 miles SSW of Mys Dokuchayeva, has a pointed summit and is very conspicuous, especially from November to June, when it is usually snow-capped. Skala Shpil', a black, pointed rock, 62m high, about 1 mile SE of the cape, lies close off a white cliff and is prominent.

Anchorage.—Vessels with local knowledge can take open anchorage, with offshore winds, in suitable depths almost anywhere off the N coast of Ostrov Kunashir.

Note.—Suisho Shoto (Malaya Kuril'skaya Gryada) (43˚26'N., 145˚55'E.) and Shikotan Jima (Ostrov Shpanberga) are described in Pub. 158, Sailing Direction (Enroute) Japan, Volume 1.

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